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Introduction

The World Health Organization (WHO) collects and summarizes a wide range of quantitative data from a variety of health domains through country offices, regional offices and headquarter departments. These data are used internally by WHO for estimation, advocacy, policy development and evaluation. They are also widely disseminated in formal publications and through more informal mechanisms, both in electronic and printed format.

This publication focuses on a basic set of health indicators that were selected on the basis of current availability and quality of data and include the majority of health indicators that have been selected for monitoring progress towards the Millennium Development Goals (MDGs). The set of indicators is not intended to capture all relevant aspects of health but to provide a snap-shot of the current health situation in countries. Importantly, the indicators in this set are not fixed - some will, over the years be added or gain in importance while others may become less relevant.

Several key indicators, including some health MDG indicators, are not included in this first edition of World Health Statistics, primarily because of data quality and comparability issues. For some such as "malaria-specific mortality" and "access to drugs" measurement and estimation methodologies are still being developed and pending the results of further research. For others such as tobacco use among the adult population and HIV prevalence among pregnant women aged 15-24 years attending antenatal clinics, estimates are not yet widely available and comparable across countries.

Indicators included in World Health Statistics focus on the most recent estimates post 1995 for each country. The statistics have been collated from WHO programme publications and databases, including WHO Regional Office publications. In the first part of World Health Statistics, data are presented in four interrelated indicator groups on: (i) health status, including mortality and morbidity outcomes; (ii) health services coverage and behavioural and environmental risks factors (iii) health systems, and (iv) population data generated by the United Nations Statistical Division or United Nations Population Division. The grouping of the indicators is arbitrary. Several of the morbid conditions such as hypertension and obesity and health services coverage (such as lack of vaccination) can also be classified as risk factors.

Many health statistics have been computed by WHO to ensure comparability, using transparent methods and a clear audit trail. Countries have subsequently been consulted by WHO programmes and regional offices. In some cases however, in order to improve comparability, the actual statistics may differ from official statistics of Member States which may use alternative rigorous methods..

As the demand for timely, accurate and consistent information on health indicators continues to increase, users need to be well oriented on what exactly these numbers measure; their strengths and weaknesses; and, the assumptions under which they should be used. The second part of World Health Statistics covers these issues, presenting a standardized description of each health indicator, definition, data source, method of estimation, disaggregation, references to literature and databases.

More detailed information is available from the WHO database of health statistics, a global database based on WHO's Global Health Atlas system, launched at the same time as World Health Statistics and which includes most recent and time series estimates (1990-present) and for the former, when available, metadata describing more detailed aspects of data sources and methods of estimation as well as maps, tabulations and graphs (<http://www.who.int/healthinfo>).





Part 1

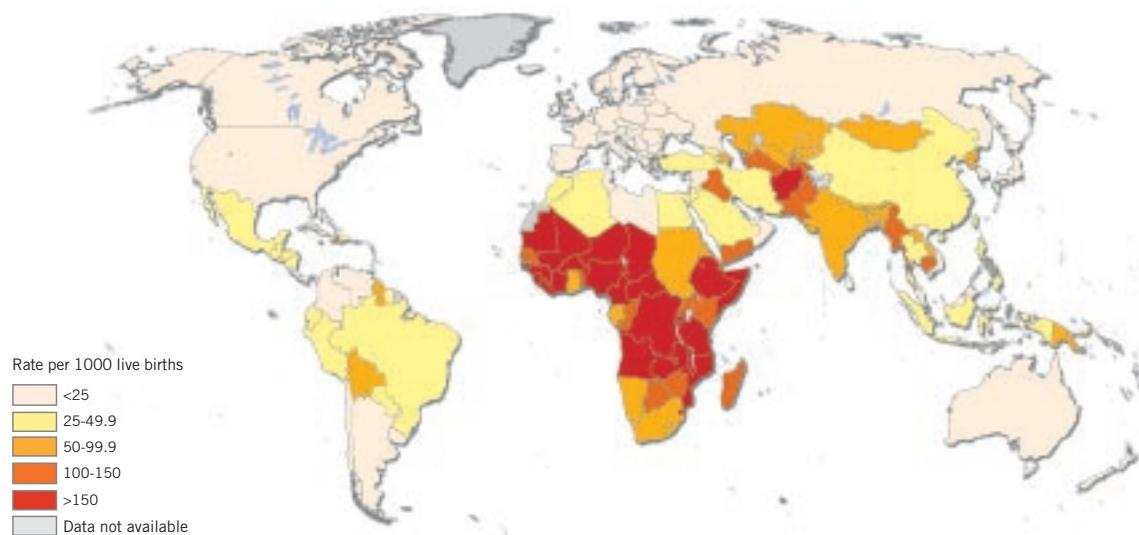
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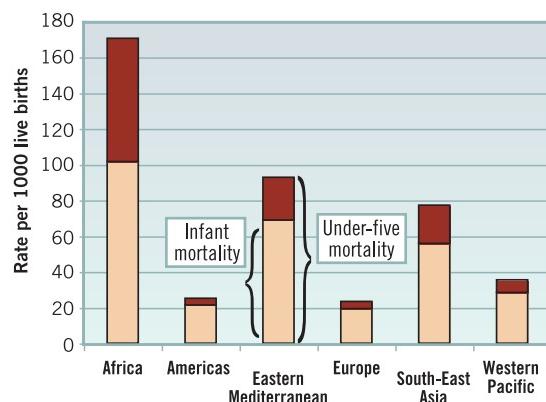


Health Status Statistics: Mortality

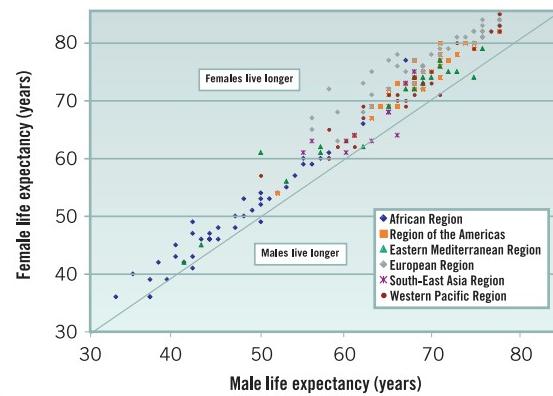
Under-five mortality rate, 2003



Under-five and infant mortality rates, by WHO Region, 2003



Life expectancy at birth, males and females, countries by WHO Region, 2003



	Country	WHO region	Life expectancy at birth ^a (years)		Healthy life expectancy (HALE) at birth ^b (years)		Probability of dying per 1 000 population between 15 and 60 years ^a (adult mortality rate)		Probability of dying per 1 000 live births under 5 years ^a (under-5 mortality rate)		Neonatal mortality rate ^a (per 1 000 live births)		Maternal mortality ratio ^a (per 100 000 live births)	
			Males 2003	Females 2003	Males 2002	Females 2002	Males 2003	Females 2003	Both sexes 2003	Both sexes 2000	2000	2000	2000	2000
1	Afghanistan	EMR	41	42	35	36	510	448	257	60	1 900			
2	Albania	EUR	69	75	60	63	167	92	21	12	55			
3	Algeria	AFR	69	72	60	62	155	125	41	20	140			
4	Andorra	EUR	78	84	70	75	107	41	5	4	...			
5	Angola	AFR	38	42	32	35	584	488	260	54	1 700			
6	Antigua and Barbuda	AMR	70	75	60	64	193	122	12	8	...			
7	Argentina	AMR	71	78	63	68	176	90	17	10	70			
8	Armenia	EUR	65	72	59	63	240	108	33	17	55			
9	Australia	WPR	78	83	71	74	89	51	6	3	6			
10	Austria	EUR	76	82	69	74	115	59	6	3	5			
11	Azerbaijan	EUR	62	68	56	59	220	120	91	36	94			
12	Bahamas	AMR	69	75	61	66	257	146	14	10	60			
13	Bahrain	EMR	73	75	64	64	117	81	9	11	33			
14	Bangladesh	SEAR	63	63	55	53	251	258	69	36	380			
15	Barbados	AMR	71	78	63	68	189	106	13	8	95			
16	Belarus	EUR	63	75	57	65	370	130	10	5	36			
17	Belgium	EUR	75	82	69	73	125	66	5	3	10			
18	Belize	AMR	65	71	58	62	257	153	39	18	140			
19	Benin	AFR	52	54	43	45	393	332	154	38	850			
20	Bhutan	SEAR	61	64	53	53	261	202	85	38	420			
21	Bolivia	AMR	63	67	54	55	247	180	66	27	420			
22	Bosnia and Herzegovina	EUR	69	76	62	66	190	89	17	11	31			
23	Botswana	AFR	37	36	36	35	850	839	112	40	100			
24	Brazil	AMR	66	73	57	62	240	129	35	15	260			
25	Brunei Darussalam	WPR	75	79	65	66	114	86	6	4	37			
26	Bulgaria	EUR	69	76	63	67	216	91	15	8	32			
27	Burkina Faso	AFR	44	46	35	36	533	462	207	36	1 000			
28	Burundi	AFR	40	45	33	37	654	525	190	41	1 000			
29	Cambodia	WPR	50	57	46	50	441	285	140	40	450			
30	Cameroon	AFR	47	48	41	42	503	461	166	40	730			
31	Canada	AMR	78	82	70	74	93	57	6	4	5			
32	Cape Verde	AFR	67	73	59	63	213	129	35	10	150			
33	Central African Republic	AFR	42	43	37	38	641	590	180	48	1 100			
34	Chad	AFR	44	47	40	42	513	444	200	45	1 100			
35	Chile	AMR	74	80	65	70	133	66	9	6	30			
36	China	WPR	70	73	63	65	164	103	37	21	56			
37	Colombia	AMR	68	77	58	66	231	97	21	14	130			
38	Comoros	AFR	62	66	54	55	254	182	73	29	480			
39	Congo	AFR	53	55	45	47	434	381	108	32	510			
40	Cook Islands	WPR	68	74	61	63	166	112	21	12	...			
41	Costa Rica	AMR	75	80	65	69	129	76	10	7	25			
42	Côte d'Ivoire	AFR	42	49	38	41	558	450	193	65	690			
43	Croatia	EUR	71	78	64	69	173	70	7	5	10			
44	Cuba	AMR	75	79	67	70	137	87	7	4	33			
45	Cyprus	EUR	76	81	67	69	99	47	6	4	47			
46	Czech Republic	EUR	72	79	66	71	166	74	5	2	9			
47	Democratic People's Republic of Korea	SEAR	65	68	58	60	231	168	55	22	67			
48	Democratic Republic of the Congo	AFR	42	47	35	39	578	452	205	47	990			
49	Denmark	EUR	75	80	69	71	121	73	5	4	7			
50	Djibouti	EMR	53	56	43	43	376	311	138	38	730			
51	Dominica	AMR	71	76	62	66	210	118	12	7	...			
52	Dominican Republic	AMR	65	72	57	62	250	147	35	19	150			
53	Ecuador	AMR	68	74	60	64	212	127	27	16	130			
54	Egypt	EMR	65	69	58	60	242	157	39	21	84			
55	El Salvador	AMR	67	73	57	62	248	138	36	16	150			



	Country	WHO region	Life expectancy at birth ^a (years)		Healthy life expectancy (HALE) at birth ^b (years)		Probability of dying per 1 000 population between 15 and 60 years ^a (adult mortality rate)		Probability of dying per 1 000 live births under 5 years ^a (under-5 mortality rate)		Neonatal mortality rate ^a (per 1 000 live births)		Maternal mortality ratio ^a (per 100 000 live births)	
			Males 2003	Females 2003	Males 2002	Females 2002	Males 2003	Females 2003	Both sexes 2003	Both sexes 2000	2000	2000	2000	2000
56	Equatorial Guinea	AFR	50	52	45	46	464	404	146	40	880			
57	Eritrea	AFR	58	61	49	51	359	301	85	25	630			
58	Estonia	EUR	65	77	59	69	319	114	8	6	38			
59	Ethiopia	AFR	49	51	41	42	450	386	169	51	850			
60	Fiji	WPR	66	71	57	61	275	173	20	9	75			
61	Finland	EUR	75	82	69	74	134	57	4	2	5			
62	France	EUR	76	84	69	75	132	59	5	3	17			
63	Gabon	AFR	55	60	50	53	397	323	91	31	420			
64	Gambia	AFR	56	59	49	51	332	262	123	46	540			
65	Georgia	EUR	67	75	62	67	195	76	45	25	32			
66	Germany	EUR	76	82	70	74	115	59	5	3	9			
67	Ghana	AFR	57	60	49	50	352	295	95	27	540			
68	Greece	EUR	76	81	69	73	118	48	6	4	10			
69	Grenada	AMR	66	69	58	60	258	220	23	13	...			
70	Guatemala	AMR	64	69	55	60	289	165	47	19	240			
71	Guinea	AFR	51	53	44	46	403	342	160	48	740			
72	Guinea-Bissau	AFR	45	48	40	42	479	405	204	48	1 100			
73	Guyana	AMR	61	64	53	57	290	255	69	25	170			
74	Haiti	AMR	52	54	44	44	450	385	119	34	680			
75	Honduras	AMR	65	69	56	61	248	181	41	18	110			
76	Hungary	EUR	68	77	62	68	257	111	9	6	11			
77	Iceland	EUR	78	82	72	74	81	53	3	2	0			
78	India	SEAR	60	63	53	54	283	213	87	43	540			
79	Indonesia	SEAR	65	68	57	59	241	204	41	18	230			
80	Iran (Islamic Republic of)	EMR	67	72	56	59	201	125	39	22	76			
81	Iraq	EMR	50	61	49	52	466	205	125	63	250			
82	Ireland	EUR	76	81	68	72	100	60	6	4	4			
83	Israel	EUR	78	82	71	72	92	51	6	4	13			
84	Italy	EUR	78	84	71	75	93	47	5	3	5			
85	Jamaica	AMR	71	74	64	66	165	123	20	10	87			
86	Japan	WPR	78	85	72	78	96	45	4	2	10			
87	Jordan	EMR	69	73	60	62	189	120	28	17	41			
88	Kazakhstan	EUR	56	67	53	59	419	187	73	32	210			
89	Kenya	AFR	50	49	44	45	495	521	123	29	1 000			
90	Kiribati	WPR	62	67	52	56	304	191	66	27	...			
91	Kuwait	EMR	76	79	67	67	73	53	12	6	12			
92	Kyrgyzstan	EUR	59	68	52	58	339	160	68	31	110			
93	Lao People's Democratic Republic	WPR	58	60	47	47	335	303	91	35	650			
94	Latvia	EUR	66	76	58	68	306	120	13	7	61			
95	Lebanon	EMR	68	72	59	62	199	138	31	20	150			
96	Lesotho	AFR	35	40	30	33	912	781	84	28	550			
97	Liberia	AFR	40	43	34	37	590	484	235	66	760			
98	Libyan Arab Jamahiriya	EMR	71	76	62	65	172	101	16	11	97			
99	Lithuania	EUR	66	78	59	68	302	106	9	5	19			
100	Luxembourg	EUR	76	82	69	74	115	63	4	4	28			
101	Madagascar	AFR	55	59	47	50	337	260	126	33	550			
102	Malawi	AFR	41	42	35	35	652	615	178	40	1 800			
103	Malaysia	WPR	70	75	62	65	195	108	7	5	41			
104	Maldives	SEAR	66	64	59	57	165	146	72	37	110			
105	Mali	AFR	44	46	38	38	486	427	220	55	1 200			
106	Malta	EUR	76	81	70	72	84	49	6	5	...			
107	Marshall Islands	WPR	60	63	54	56	333	280	61	26	...			
108	Mauritania	AFR	48	53	43	46	408	312	184	70	1 000			
109	Mauritius	AFR	69	76	60	65	218	115	17	12	24			
110	Mexico	AMR	72	77	63	68	166	95	28	15	83			

	Country	WHO region	Life expectancy at birth ^a (years)		Healthy life expectancy (HALE) at birth ^b (years)		Probability of dying per 1 000 population between 15 and 60 years ^a (adult mortality rate)		Probability of dying per 1 000 live births under 5 years ^a (under-5 mortality rate)		Neonatal mortality rate ^a (per 1 000 live births)		Maternal mortality ratio ^a (per 100 000 live births)	
			Males 2003	Females 2003	Males 2002	Females 2002	Males 2003	Females 2003	Both sexes 2003	Both sexes 2000	2000	2000	2000	2000
111	Micronesia (Federated States of)	WPR	68	71	57	58	206	172	23	12	...	...	...	...
112	Monaco	EUR	78	85	71	75	110	47	4	3	...	...	...	...
113	Mongolia	WPR	62	69	53	58	310	179	68	26	110	...	...	...
114	Morocco	EMR	69	73	60	61	159	103	39	21	220	...	...	...
115	Mozambique	AFR	44	46	36	38	621	543	158	48	1 000	...	...	...
116	Myanmar	SEAR	56	63	50	54	337	222	106	40	360	...	...	...
117	Namibia	AFR	50	53	43	44	619	529	65	25	300	...	...	...
118	Nauru	WPR	58	65	53	58	448	303	30	14	...	...	...	...
119	Nepal	SEAR	60	61	53	51	290	284	82	40	740	...	...	...
120	Netherlands	EUR	76	81	70	73	93	66	6	4	16	...	...	...
121	New Zealand	WPR	77	82	70	72	98	65	6	4	7	...	...	...
122	Nicaragua	AMR	68	73	60	63	209	138	38	18	230	...	...	...
123	Niger	AFR	42	41	36	35	508	477	262	43	1 600	...	...	...
124	Nigeria	AFR	45	46	41	42	511	470	198	53	800	...	...	...
125	Niue	WPR	68	74	59	62	189	133	33	13	...	...	...	...
126	Norway	EUR	77	82	70	74	96	58	4	3	10	...	...	...
127	Oman	EMR	71	77	63	65	163	91	12	6	87	...	...	...
128	Pakistan	EMR	62	62	54	52	225	199	103	57	500	...	...	...
129	Palau	WPR	66	70	59	61	226	205	28	14	...	...	...	...
130	Panama	AMR	73	78	64	68	146	84	24	11	160	...	...	...
131	Papua New Guinea	WPR	59	62	51	52	309	246	93	32	300	...	...	...
132	Paraguay	AMR	69	75	60	64	171	119	29	16	170	...	...	...
133	Peru	AMR	68	73	60	62	193	133	34	16	410	...	...	...
134	Philippines	WPR	65	71	57	62	271	149	36	15	200	...	...	...
135	Poland	EUR	71	79	63	69	202	81	8	6	10	...	...	...
136	Portugal	EUR	74	81	67	72	150	63	6	3	8	...	...	...
137	Qatar	EMR	75	74	67	64	93	76	13	5	7	...	...	...
138	Republic of Korea	WPR	73	80	65	71	155	61	5	3	20	...	...	...
139	Republic of Moldova	EUR	63	71	57	62	303	152	32	16	36	...	...	...
140	Romania	EUR	68	75	61	65	239	107	20	9	58	...	...	...
141	Russian Federation	EUR	58	72	53	64	480	182	16	9	65	...	...	...
142	Rwanda	AFR	43	46	36	40	541	455	203	45	1 400	...	...	...
143	Saint Kitts and Nevis	AMR	69	72	60	63	200	145	22	12	...	...	...	...
144	Saint Lucia	AMR	69	75	61	64	224	131	14	10	...	...	...	...
145	Saint Vincent and the Grenadines	AMR	68	72	60	62	233	192	22	11	...	...	...	...
146	Samoa	WPR	67	70	59	60	235	203	24	13	...	...	...	...
147	San Marino	EUR	78	84	71	76	73	32	4	2	...	...	...	...
148	Sao Tome and Principe	AFR	58	60	54	55	295	244	118	38	...	...	...	...
149	Saudi Arabia	EMR	68	74	60	63	196	119	27	12	23	...	...	...
150	Senegal	AFR	54	57	47	49	350	280	137	31	690	...	...	...
151	Serbia and Montenegro	EUR	70	75	63	65	186	99	14	9	9	...	...	...
152	Seychelles	AFR	67	77	57	65	235	92	15	9	...	...	...	...
153	Sierra Leone	AFR	37	39	27	30	597	517	283	56	2 000	...	...	...
154	Singapore	WPR	78	82	69	71	87	51	3	1	15	...	...	...
155	Slovakia	EUR	70	78	63	69	204	77	8	5	10	...	...	...
156	Slovenia	EUR	73	81	67	72	165	69	5	4	17	...	...	...
157	Solomon Islands	WPR	69	73	55	57	196	145	22	12	130	...	...	...
158	Somalia	EMR	43	45	36	38	518	431	225	49	1 100	...	...	...
159	South Africa	AFR	48	50	43	45	642	579	66	21	230	...	...	...
160	Spain	EUR	76	83	70	75	116	46	5	3	5	...	...	...
161	Sri Lanka	SEAR	68	75	59	64	235	120	15	11	92	...	...	...
162	Sudan	EMR	57	62	47	50	348	248	93	29	590	...	...	...
163	Suriname	AMR	63	69	57	61	306	180	39	18	110	...	...	...
164	Swaziland	AFR	33	36	33	35	894	790	153	38	370	...	...	...
165	Sweden	EUR	78	83	72	75	79	50	4	2	8	...	...	...



Country	WHO region	Life expectancy at birth ^a (years)		Healthy life expectancy (HALE) at birth ^b (years)		Probability of dying per 1 000 population between 15 and 60 years ^a (adult mortality rate)		Probability of dying per 1 000 live births under 5 years ^a (under-5 mortality rate)		Neonatal mortality rate ^a (per 1 000 live births)	Maternal mortality ratio ^a (per 100 000 live births)
		Males 2003	Females 2003	Males 2002	Females 2002	Males 2003	Females 2003	Both sexes 2003	Both sexes 2000	2000	
166 Switzerland	EUR	78	83	71	75	90	50	5	3	7	
167 Syrian Arab Republic	EMR	69	74	60	63	188	126	18	9	160	
168 Tajikistan	EUR	59	63	53	56	225	169	118	38	100	
169 Thailand	SEAR	67	73	58	62	267	153	26	13	44	
170 The former Yugoslav Republic of Macedonia	EUR	69	75	62	65	202	86	12	9	13	
171 Timor-Leste	SEAR	55	61	48	52	324	228	125	40	...	
172 Togo	AFR	50	54	44	46	448	377	140	40	570	
173 Tonga	WPR	71	71	62	62	155	188	19	10	...	
174 Trinidad and Tobago	AMR	67	73	60	64	249	155	20	13	110	
175 Tunisia	EMR	70	74	61	64	167	113	24	14	120	
176 Turkey	EUR	68	73	61	63	176	111	39	22	70	
177 Turkmenistan	EUR	56	65	52	57	352	171	102	35	31	
178 Tuvalu	WPR	61	62	53	53	313	274	51	22	...	
179 Uganda	AFR	47	50	42	44	533	459	140	32	880	
180 Ukraine	EUR	62	73	55	64	384	142	20	9	38	
181 United Arab Emirates	EMR	72	75	64	64	168	121	8	5	54	
182 United Kingdom	EUR	76	81	69	72	103	64	6	4	11	
183 United Republic of Tanzania	AFR	44	46	40	41	587	550	165	43	1 500	
184 United States of America	AMR	75	80	67	71	139	82	8	5	14	
185 Uruguay	AMR	71	80	63	69	180	87	15	7	20	
186 Uzbekistan	EUR	63	69	58	61	226	142	69	27	24	
187 Vanuatu	WPR	67	69	59	59	214	173	38	19	...	
188 Venezuela	AMR	71	77	62	67	181	97	21	12	78	
189 Viet Nam	WPR	68	74	60	63	205	129	23	15	130	
190 Yemen	EMR	57	61	48	51	298	227	113	37	570	
191 Zambia	AFR	39	39	35	35	719	685	182	40	750	
192 Zimbabwe	AFR	37	36	34	33	830	819	126	33	1 100	
Region											
African Region	AFR	46	48	40	42	522	466	171	43	910	
Region of the Americas	AMR	71	77	63	67	179	102	25	12	140	
South-East Asia Region	SEAR	61	64	54	55	275	212	78	38	460	
European Region	EUR	68	77	62	68	234	100	23	11	39	
Eastern Mediterranean Region	EMR	61	64	53	54	257	187	92	40	460	
Western Pacific Region	WPR	70	74	63	66	164	100	36	19	80	

Figures computed by WHO to improve comparability where appropriate; they are not necessarily the official statistics of Member States, which may use alternative rigorous methods.

... Data not available or not applicable.

a) The World Health Report 2005: make every mother and child count. Geneva, World Health Organization, 2005. (<http://www.who.int/whr/2005/en/index.html>)

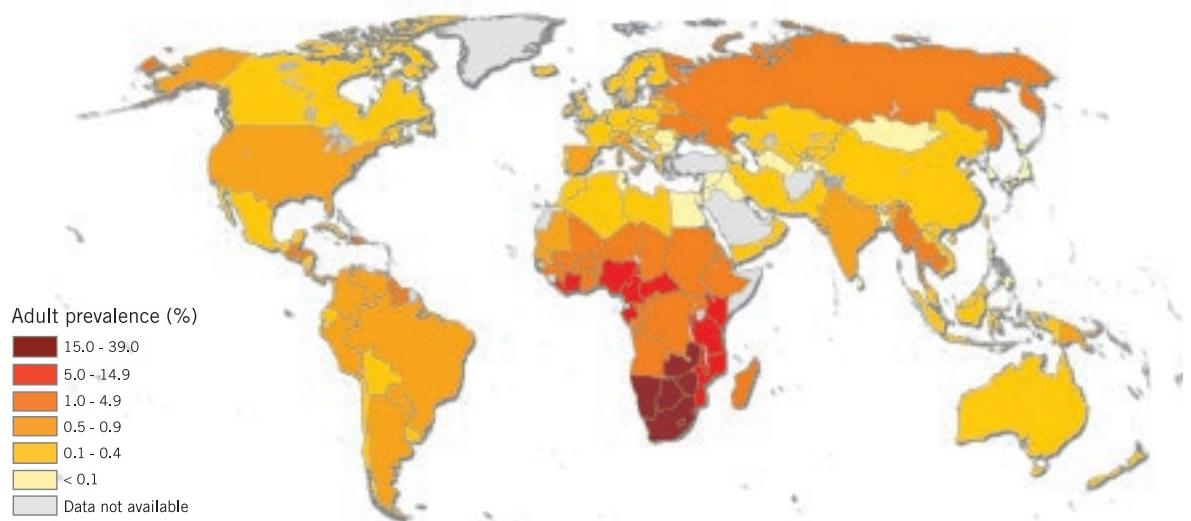
b) The World Health Report 2004: changing history. Geneva, World Health Organization, 2004. (http://www.who.int/whr/2004/en/report04_en.pdf)



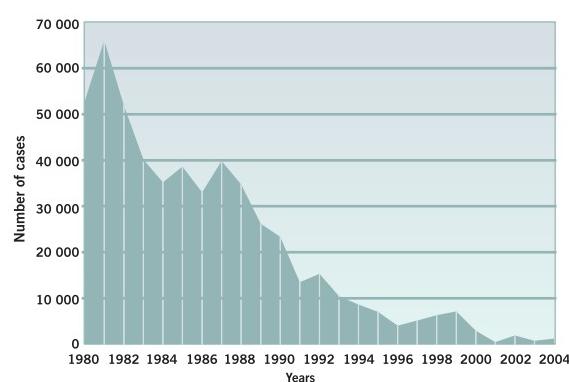


Health Status Statistics: Morbidity

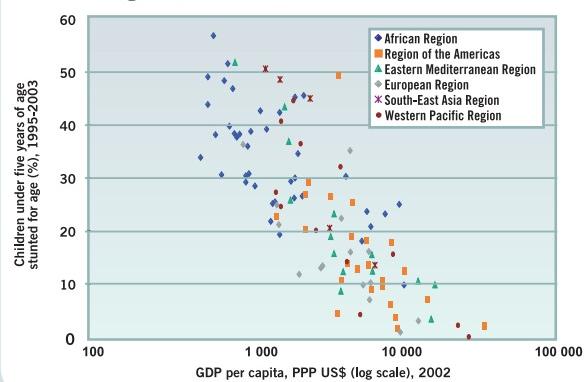
Adults (15-49 years of age) living with HIV (%), end 2003



Global number of poliomyelitis cases,
1980-2004



Children under five years of age stunted for age (%) by GDP per capita, countries by WHO Region, 1995-2003





	Country	WHO region	Number of adults and children living with HIV ^a	Adult (15–49) rate of people living with HIV (%) ^a	Number of polio cases ^b	TB: new smear positive cases ^c (per 100 000 population)	Newborns with low birth weight ^d (%)
			Both sexes 2003	Both sexes 2003	Both sexes 2004	Both sexes 2003	Both sexes 2000–2002
1	Afghanistan	EMR	...	...	4	150	...
2	Albania	EUR	...	...	0	10	3
3	Algeria	AFR	9 100	0.1	0	24	7
4	Andorra	EUR	...	...	0	8	...
5	Angola	AFR	240 000	3.9	0	113	12
6	Antigua and Barbuda	AMR	...	...	0	3	8
7	Argentina	AMR	130 000	0.7	0	20	7
8	Armenia	EUR	2 600	0.1	0	32	7
9	Australia	WPR	14 000	0.1	0	3	7
10	Austria	EUR	10 000	0.3	0	6	7
11	Azerbaijan	EUR	1 400	<0.1	0	34	11
12	Bahamas	AMR	5 600	3.0	0	18	7
13	Bahrain	EMR	<600	0.2	0	20	8
14	Bangladesh	SEAR	...	...	0	111	30
15	Barbados	AMR	2 500	1.5	0	5	10
16	Belarus	EUR	...	...	0	24	5
17	Belgium	EUR	10 000	0.2	0	6	8
18	Belize	AMR	3 600	2.4	0	25	6
19	Benin	AFR	68 000	1.9	6	39	16
20	Bhutan	SEAR	...	...	0	50	15
21	Bolivia	AMR	4 900	0.1	0	101	9
22	Bosnia and Herzegovina	EUR	900	<0.1	0	25	4
23	Botswana	AFR	350 000	37.3	1	250	10
24	Brazil	AMR	660 000	0.7	0	28	10
25	Brunei Darussalam	WPR	<200	<0.1	0	25	10
26	Bulgaria	EUR	<500	<0.1	0	20	10
27	Burkina Faso	AFR	300 000	4.2	9	71	19
28	Burundi	AFR	250 000	6.0	0	148	16
29	Cambodia	WPR	170 000	2.6	0	225	11
30	Cameroon	AFR	560 000	6.9	13	77	11
31	Canada	AMR	56 000	0.3	0	2	6
32	Cape Verde	AFR	...	...	0	75	13
33	Central African Republic	AFR	260 000	13.5	30	135	14
34	Chad	AFR	200 000	4.8	24	98	17
35	Chile	AMR	26 000	0.3	0	7	5
36	China	WPR	840 000	0.1	2	46	6
37	Colombia	AMR	190 000	0.7	0	23	9
38	Comoros	AFR	...	...	0	22	25
39	Congo	AFR	90 000	4.9	0	164	...
40	Cook Islands	WPR	...	...	0	13	3
41	Costa Rica	AMR	12 000	0.6	0	7	7
42	Côte d'Ivoire	AFR	570 000	7.0	17	170	17
43	Croatia	EUR	<200	<0.1	0	19	6
44	Cuba	AMR	3 300	0.1	0	5	6
45	Cyprus	EUR	...	...	0	2	...
46	Czech Republic	EUR	2 500	0.1	0	5	7
47	Democratic People's Republic of Korea	SEAR	...	...	0	80	7
48	Democratic Republic of the Congo	AFR	1 100 000	4.2	0	160	12
49	Denmark	EUR	5 000	0.2	0	4	5
50	Djibouti	EMR	9 100	2.9	0	324	...
51	Dominica	AMR	...	...	0	7	10
52	Dominican Republic	AMR	88 000	1.7	0	42	11
53	Ecuador	AMR	21 000	0.3	0	62	16
54	Egypt	EMR	12 000	<0.1	1	13	12
55	El Salvador	AMR	29 000	0.7	0	25	13



Children under-5 stunted for age ^e		Children under-5 underweight for age ^e		Adults (≥15) who are obese ^f		Mean systolic blood pressure among adults (≥15) ^g (mmHg)	
(%)	year	(%)	year	(%)	year		
Both sexes		Both sexes		Males	Females	Males 2002	Females 2002
48	1997	49	1997	...	...	...	...
35	2000	14	2000	...	...	129	125
19	2002	10	2002	...	...	...	...
...
45	2001	31	2001	...	...	...	...
...
12	1995–96	5	1995–96	...	...	120	119
13	2000–01	3	2000–01	...	14.1	2000–01 ^j	...
0	1995–96	0	1995–96	14.8	15.3	2001 ^{h,i}	118
...	...	...	...	...	...	129	122
13	2001	7	2001	...	...	...	...
...	...	...	...	...	...	139	142
10	1995	9	1995	23.3	34.1	1998–99 ⁱ	125
42	2003	48	2003	...	...	...	117
...	...	...	...	...	...	124	119
...	...	...	...	...	...	134	...
...	...	...	...	10.3	11.0	2001 ^h	127
...
31	2001	23	2001	...	6.1	2001 ^j	...
40	1999	19	1999	...	...	...	...
27	2003–04	8	2003–04	...	15.1	2003 ^j	124
10	2000	4	2000	16.5	25.2	2002 ⁱ	130
23	2000	13	2000	...	...	...	...
11	1996	6	1996	8.9	13.1	2002–03 ⁱ	124
...
...	...	...	...	...	...	132	125
39	2003	38	2003	...	2.4	2003 ^j	...
57	2000	45	2000	...	...	...	...
45	2000	45	2000	...	0.7	2000 ^j	...
29	1998	22	1998	...	...	...	125
...	...	...	...	15.9	13.9	2003 ^{h,i}	126
...
28	1995	23	1995	...	...	...	...
29	2000	28	2000	...	...	...	...
2	2002	1	2002	19.0	25.0	2003 ⁱ	119
14	2000	10	2000	2.4	3.4	2002 ⁱ	121
14	2000	7	2000	...	...	...	119
42	2000	25	2000	...	...	...	...
...
...	...	...	...	58.6	66.3	2003 ⁱ	129
6	1996	5	1996	...	...	...	128
25	1998–99	21	1998–99	...	5.0	1998–99 ^j	122
1	1995–96	1	1995–96	21.6	22.7	2003 ⁱ	117
5	2000	4	2000	...	...	...	...
...	...	...	...	...	...	128	123
...	...	...	...	13.7	16.3	2002 ^{h,i}	130
37	2004	23	2004	...	...	...	...
38	2001	31	2001	...	...	...	...
...	...	...	...	...	...	122	115
26	1996	18	1996	...	...	...	...
...
9	2002	5	2002	12.7	18.3	1996–98 ⁱ	126
26	1998	14	1998	...	...	...	121
16	2003	9	2003	12.6	33.0	1998–99 ⁱ	122
19	2002–03	10	2002–03	...	...	...	125



	Country	WHO region	Number of adults and children living with HIV ^a	Adult (15–49) rate of people living with HIV (%) ^a	Number of polio cases ^b	TB: new smear positive cases ^c (per 100 000 population)	Newborns with low birth weight ^d (%)
			Both sexes 2003	Both sexes 2003	Both sexes 2004	Both sexes 2003	Both sexes 2000–2002
56	Equatorial Guinea	AFR	...	...	0	82	13
57	Eritrea	AFR	60 000	2.7	0	119	21
58	Estonia	EUR	7 800	1.1	0	22	4
59	Ethiopia	AFR	1 500 000	4.4	1	155	15
60	Fiji	WPR	600	0.1	0	13	10
61	Finland	EUR	1 500	0.1	0	4	4
62	France	EUR	120 000	0.4	0	5	7
63	Gabon	AFR	48 000	8.1	0	100	14
64	Gambia	AFR	6 800	1.2	0	104	17
65	Georgia	EUR	3 000	0.1	0	37	6
66	Germany	EUR	43 000	0.1	0	4	7
67	Ghana	AFR	350 000	3.1	0	92	11
68	Greece	EUR	9 100	0.2	0	9	8
69	Grenada	AMR	...	...	0	2	9
70	Guatemala	AMR	78 000	1.1	0	33	13
71	Guinea	AFR	140 000	3.2	7	104	12
72	Guinea-Bissau	AFR	...	...	0	87	22
73	Guyana	AMR	11 000	2.5	0	57	12
74	Haiti	AMR	280 000	5.6	0	140	21
75	Honduras	AMR	63 000	1.8	0	36	14
76	Hungary	EUR	2 800	0.1	0	13	9
77	Iceland	EUR	<500	0.2	0	1	4
78	India	SEAR	5 100 000	0.9	136	75	30
79	Indonesia	SEAR	110 000	0.1	0	128	9
80	Iran (Islamic Republic of)	EMR	31 000	0.1	0	13	7
81	Iraq	EMR	<500	<0.1	0	71	15
82	Ireland	EUR	2 800	0.1	0	5	6
83	Israel	EUR	3 000	0.1	0	4	8
84	Italy	EUR	140 000	0.5	0	3	6
85	Jamaica	AMR	22 000	1.2	0	3	9
86	Japan	WPR	12 000	<0.1	0	14	8
87	Jordan	EMR	600	<0.1	0	2	10
88	Kazakhstan	EUR	16 500	0.2	0	65	8
89	Kenya	AFR	1 200 000	6.7	0	262	11
90	Kiribati	WPR	...	...	0	27	5
91	Kuwait	EMR	...	...	0	12	7
92	Kyrgyzstan	EUR	3 900	0.1	0	56	7
93	Lao People's Democratic Republic	WPR	1 700	0.1	1	71	14
94	Latvia	EUR	7 600	0.6	0	34	5
95	Lebanon	EMR	2 800	0.1	0	6	6
96	Lesotho	AFR	320 000	28.9	0	290	14
97	Liberia	AFR	100 000	5.9	0	108	...
98	Libyan Arab Jamahiriya	EMR	10 000	0.3	0	9	7
99	Lithuania	EUR	1 300	0.1	0	31	4
100	Luxembourg	EUR	<500	0.2	0	5	8
101	Madagascar	AFR	140 000	1.7	0	96	14
102	Malawi	AFR	900 000	14.2	0	183	16
103	Malaysia	WPR	52 000	0.4	0	47	10
104	Maldives	SEAR	...	...	0	20	22
105	Mali	AFR	140 000	1.9	19	127	23
106	Malta	EUR	<500	0.2	0	3	6
107	Marshall Islands	WPR	...	...	0	27	12
108	Mauritania	AFR	9 500	0.6	0	128	...
109	Mauritius	AFR	...	...	0	29	13
110	Mexico	AMR	160 000	0.3	0	15	9



Children under-5 stunted for age ^e		Children under-5 underweight for age ^e		Adults (≥15) who are obese ^f		Mean systolic blood pressure among adults (≥15) ^g (mmHg)	
(%)	year	(%)	year	(%)	year		
Both sexes		Both sexes		Males	Females	Males 2002	Females 2002
...
38	2002	40	2002	...	1.6	2002 ⁱ	...
...	...	...	...	11.8	14.8	2002 ^{h,i}	131
52	2000	47	2000	...	0.3	2000 ^j	124
...	...	...	...	13.2	33.7	2002 ⁱ	117
...	...	...	...	20.8	23.9	2000–01 ⁱ	131
...	...	...	...	...	...	...	125
...	...	...	...	...	...	...	125
21	2000–01	12	2000–01	...	...	...	...
19	2000	17	2000	...	...	...	131
12	1999	3	1999	...	...	...	140
...	...	...	...	13.6	12.3	2002–03 ^{h,i}	134
30	2003	22	2003	...	8.1	2003 ^j	124
...	...	...	...	...	...	...	123
...	...	...	...	...	...	...	131
49	2002	23	2002	...	...	...	128
26	1999	23	1999	...	...	...	113
31	2000	25	2000	...	...	...	...
11	2000	14	2000	...	...	...	...
23	2000	17	2000	...	7.8	2000 ^j	126
29	2001	17	2001	...	...	...	127
...	...	...	...	18.4	20.4	2000 ^{h,i}	134
...	...	...	...	...	...	...	126
...	...	...	...	...	...	...	118
45	1998–99	47	1998–99	0.3	0.5	1998 ⁱ	124
...	...	27	2002	11.1	3.6	2001	123
15	1998	11	1998	5.6	14.2	1999	123
22	2000	16	2000	...	...	...	...
...	...	...	...	14.0	12.0	2002 ^{h,i}	...
...	...	...	...	19.8	25.4	1999–01 ⁱ	128
...	...	...	...	...	...	...	121
4	1999	4	1999	...	...	...	122
...	...	...	...	...	...	...	119
9	2002	4	2002	...	26.3	2002 ^j	...
10	1999	4	1999	...	12.7	1999 ^j	...
30	2003	20	2003	...	6.3	2003 ^j	118
...	...	...	...	...	...	...	108
3	1996–97	2	1996–97	27.5	29.8	1998–00 ⁱ	127
25	1997	11	1997	...	8.6	1997 ⁱ	...
42	2000	40	2000	0.7	1.6	2000	...
...	...	...	...	9.5	16.5	2002 ^h	...
12	1996	3	1996	14.3	18.8	1997 ⁱ	...
46	2000	18	2000	...	...	...	...
40	1999–00	27	1999–00	...	...	...	142
15	1995	5	1995	...	...	...	137
...	...	...	...	16.2	15.8	2002 ^{h,i}	131
...	...	...	...	...	...	...	134
48	1997	40	1997	...	...	...	126
49	2000	25	2000	...	2.1	2000 ^j	121
16	1999	19	1999	4.0	7.6	1996 ⁱ	119
25	2001	30	2001	...	...	...	117
38	2001	33	2001	...	3.7	2001 ^j	140
...	...	...	...	...	...	...	121
...	...	...	...	38.5	52.7	2002 ⁱ	122
35	2001	32	2001	...	16.7	2000–01 ^j	...
10	1995	15	1995	8.0	20.0	1998 ⁱ	124
18	1998–99	8	1998–99	18.6	28.1	2000 ⁱ	121

	Country	WHO region	Number of adults and children living with HIV ^a	Adult (15–49) rate of people living with HIV (%) ^a	Number of polio cases ^b	TB: new smear positive cases ^c (per 100 000 population)	Newborns with low birth weight ^d (%)
			Both sexes 2003	Both sexes 2003	Both sexes 2004	Both sexes 2003	Both sexes 2000–2002
111	Micronesia (Federated States of)	WPR	...	...	0	27	18
112	Monaco	EUR	...	...	0	1	...
113	Mongolia	WPR	<500	<0.1	0	87	8
114	Morocco	EMR	15 000	0.1	0	51	11
115	Mozambique	AFR	1 300 000	12.2	0	190	14
116	Myanmar	SEAR	330 000	1.2	0	76	15
117	Namibia	AFR	210 000	21.3	0	293	14
118	Nauru	WPR	...	...	0	13	...
119	Nepal	SEAR	61 000	0.5	0	95	21
120	Netherlands	EUR	19 000	0.2	0	3	...
121	New Zealand	WPR	1 400	0.1	0	5	6
122	Nicaragua	AMR	6 400	0.2	0	28	12
123	Niger	AFR	70 000	1.2	25	70	17
124	Nigeria	AFR	3 600 000	5.4	792	126	14
125	Niue	WPR	...	...	0	13	0
126	Norway	EUR	2 100	0.1	0	2	5
127	Oman	EMR	1 300	0.1	0	5	8
128	Pakistan	EMR	74 000	0.1	53	82	19
129	Palau	WPR	...	...	0	27	9
130	Panama	AMR	16 000	0.9	0	21	10
131	Papua New Guinea	WPR	16 000	0.6	0	105	11
132	Paraguay	AMR	15 000	0.5	0	31	9
133	Peru	AMR	82 000	0.5	0	84	11
134	Philippines	WPR	9 000	<0.1	0	133	20
135	Poland	EUR	14 000	0.1	0	14	6
136	Portugal	EUR	22 000	0.4	0	20	8
137	Qatar	EMR	...	...	0	27	10
138	Republic of Korea	WPR	8 300	<0.1	0	39	4
139	Republic of Moldova	EUR	5 500	0.2	0	62	5
140	Romania	EUR	6 500	<0.1	0	67	9
141	Russian Federation	EUR	860 000	1.1	0	50	6
142	Rwanda	AFR	250 000	5.1	0	161	9
143	Saint Kitts and Nevis	AMR	...	...	0	5	9
144	Saint Lucia	AMR	...	...	0	8	8
145	Saint Vincent and the Grenadines	AMR	...	...	0	13	10
146	Samoa	WPR	...	...	0	13	4
147	San Marino	EUR	...	...	0	3	...
148	Sao Tome and Principe	AFR	...	...	0	48	...
149	Saudi Arabia	EMR	...	...	0	18	11
150	Senegal	AFR	44 000	0.8	0	110	18
151	Serbia and Montenegro	EUR	10 000	0.2	0	16	4
152	Seychelles	AFR	...	...	0	16	...
153	Sierra Leone	AFR	...	...	0	189	...
154	Singapore	WPR	4 100	0.2	0	18	8
155	Slovakia	EUR	<200	<0.1	0	11	7
156	Slovenia	EUR	<500	<0.1	0	8	6
157	Solomon Islands	WPR	...	...	0	27	13
158	Somalia	EMR	...	...	0	184	...
159	South Africa	AFR	5 300 000	21.5	0	218	15
160	Spain	EUR	140 000	0.7	0	12	6
161	Sri Lanka	SEAR	3 500	<0.1	0	27	22
162	Sudan	EMR	400 000	2.3	127	97	31
163	Suriname	AMR	5 200	1.7	0	30	13
164	Swaziland	AFR	220 000	38.8	0	426	9
165	Sweden	EUR	3 600	0.1	0	2	4



Children under-5 stunted for age ^e		Children under-5 underweight for age ^e		Adults (≥15) who are obese ^f		Mean systolic blood pressure among adults (≥15) ^g (mmHg)	
(%)	year	(%)	year	(%)	year		
Both sexes		Both sexes		Males	Females	Males 2002	Females 2002
...	...	...	...	30.5	57.3	2002 ⁱ	124
...
25	2000	13	2000	...	...	129	126
23	1997	9	1997	8.2	21.7	2000 ⁱ	130
36	1997	26	1997	...	...	...	...
32	2003	32	2003	...	...	121	114
24	2000	24	2000	...	...	...	...
...	...	...	...	72.1	77.3	2004 ⁱ	129
51	2001	48	2001	...	...	...	...
...	...	...	...	10.2	11.9	1998–01	131
...	...	...	...	21.9	23.2	2002–03	134
20	2001	10	2001	...	18.0	2001 ⁱ	...
40	2000	40	2000	...	...	...	...
38	2003	29	2003	...	5.8	2003 ⁱ	132
...	...	...	...	...	...	125	122
...	...	...	...	6.8	5.8	1998 ^{h,i}	...
10	1998	18	1998	...	...	117	114
37	2001	35	2001	...	...	126	125
...	...	...	...	...	...	135	129
18	1997	8	1997	...	...	...	...
...	...	...	...	...	...	118	121
...	...	...	...	...	...	122	128
25	2000	7	2000	11.5	19.9	2000 ⁱ	114
32	1998	32	1998	2.1	4.4	1998 ⁱ	122
...	...	...	...	10.3	12.4	1996 ^h	129
...	...	...	...	...	...	127	124
8	1995	6	1995	...	...	...	...
...	...	...	...	1.7	3.0	1998 ⁱ	126
...
10	2002	3	2002	9.1	19.1	1997	127
...	...	...	...	10.8	27.9	1996 ⁱ	129
43	2000	24	2000	...	...	...	...
...
...	...	...	...	...	...	127	122
...
4	1999	2	1999	48.4	67.9	2002 ⁱ	125
...
29	2000	13	2000	...	...	...	...
...	...	...	...	13.1	20.3	1995 ⁱ	124
25	2000	23	2000	...	...	...	134
5	2000	2	2000	...	...	...	133
...	...	...	...	...	...	...	135
34	2000	27	2000	...	...	...	133
2	2000	3	2000	5.3	6.7	1998 ⁱ	124
...
...
...	...	...	...	...	...	117	113
23	2000	26	2000	...	...	...	...
25	1999	12	1999	9.4	30.1	1998	125
...	...	...	...	12.3	12.1	1995–97 ^{h,i}	123
14	2001	30	2001	...	...	...	122
43	2000	41	2000	...	...	...	...
10	1999–00	13	1999–00	...	...	...	...
30	2000	10	2000	...	...	...	...
...	...	...	...	10.4	9.5	2002–03 ^{h,i}	131
							125



	Country	WHO region	Number of adults and children living with HIV ^a	Adult (15–49) rate of people living with HIV (%) ^a	Number of polio cases ^b	TB: new smear positive cases ^c (per 100 000 population)	Newborns with low birth weight ^d (%)
			Both sexes 2003	Both sexes 2003	Both sexes 2004	Both sexes 2003	Both sexes 2000–2002
166	Switzerland	EUR	13 000	0.4	0	3	6
167	Syrian Arab Republic	EMR	<500	<0.1	0	19	6
168	Tajikistan	EUR	<200	<0.1	0	76	15
169	Thailand	SEAR	570 000	1.5	0	63	9
170	The former Yugoslav Republic of Macedonia	EUR	<200	<0.1	0	14	5
171	Timor-Leste	SEAR	...	...	0	250	10
172	Togo	AFR	110 000	4.1	0	153	15
173	Tonga	WPR	...	...	0	13	0
174	Trinidad and Tobago	AMR	29 000	3.2	0	4	23
175	Tunisia	EMR	1 000	<0.1	0	10	7
176	Turkey	EUR	...	...	0	12	16
177	Turkmenistan	EUR	<200	<0.1	0	30	6
178	Tuvalu	WPR	...	...	0	13	5
179	Uganda	AFR	530 000	4.1	0	179	12
180	Ukraine	EUR	360 000	1.4	0	41	5
181	United Arab Emirates	EMR	...	...	0	8	15
182	United Kingdom	EUR	51 000	0.2	0	5	8
183	United Republic of Tanzania	AFR	1 600 000	8.8	0	157	13
184	United States of America	AMR	950 000	0.6	0	2	8
185	Uruguay	AMR	6 000	0.3	0	12	8
186	Uzbekistan	EUR	11 000	0.1	0	52	7
187	Vanuatu	WPR	...	...	0	27	6
188	Venezuela	AMR	110 000	0.7	0	19	7
189	Viet Nam	WPR	220 000	0.4	0	80	9
190	Yemen	EMR	12 000	0.1	0	42	32
191	Zambia	AFR	920 000	16.5	0	269	12
192	Zimbabwe	AFR	1 800 000	24.6	0	265	11

Region		(update 2004)	(update 2004)			
African Region	AFR	25 300 000	7.1	944	74	14
Region of the Americas	AMR	3 200 000	0.7	0	19	9
South-East Asia Region	SEAR	6 400 000	0.7	136	85	26
European Region	EUR	2 000 000	0.4	0	22	8
Eastern Mediterranean Region	EMR	710 000	0.3	187	55	17
Western Pacific Region	WPR	1 700 000	0.2	3	50	8

Figures computed by WHO to improve comparability where appropriate; they are not necessarily the official statistics of Member States, which may use alternative rigorous methods.

... Data not available or not applicable.

a) UNAIDS 2004 report on the global HIV/AIDS epidemic: 4th global report. Geneva, Joint United Nations Programme on HIV/AIDS, 2004. (<http://www.unaids.org/bangkok2004/report.html>)

b) World Health Organization, Department of Immunization Vaccines and Biologicals, Vaccine Assessment and Monitoring Team. (http://www.who.int/vaccines/casecount/case_count.cfm, accessed on 26 April 2005)

c) WHO report 2005. Global Tuberculosis Control; Surveillance, Planning, Financing. Geneva, World Health Organization, 2005.

d) Low Birthweight: Country, regional and global estimates. New York, United Nations Children's Fund and World Health Organization, 2004. (http://www.who.int/reproductive-health/publications/low_birthweight/low_birthweight_estimates.pdf)

e) The WHO Global Database on Child Growth and Malnutrition. (<http://www.who.int/nutgrowthdb>)

f) WHO Global Database on Body Mass Index (BMI). (<http://www.who.int/bmi>, accessed on 27 April 2005)

g) Global NCD InfoBase/Online Tool. World Health Organization. (http://www.who.int/ncd_surveillance/infobase/en)

h) Self reported data.

i) Lower age limit above 15.

j) Upper age limit at 50.



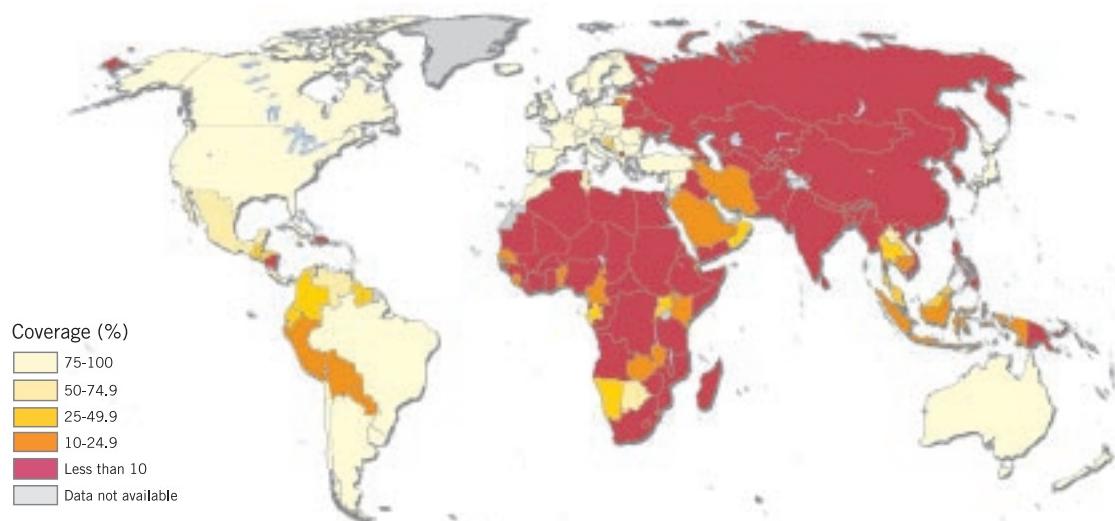
Children under-5 stunted for age ^e		Children under-5 underweight for age ^e		Adults (≥ 15) who are obese ^f		Mean systolic blood pressure among adults (≥ 15) ^g (mmHg)
(%)	year	(%)	year	(%)	year	
Both sexes		Both sexes		Males	Females	
...	...	...	...	7.9	7.5	2002 ^h
19	2000	7	2000	...	...	126
36	2003	...	...	...	...	115
13	1995	18	1995	...	...	...
7	1999	6	1999	...	...	...
49	2003	46	2003	...	...	...
22	1998	25	1998	...	...	...
...	...	...	...	...	...	133
4	2000	6	2000	...	...	127
12	2000	4	2000	6.4	22.7	1996–97 ⁱ
16	1998	8	1998	12.9	29.9	1997 ⁱ
22	2000	12	2000	...	10.3	2000 ^j
...
39	2000–01	23	2000–01	...	...	...
16	2000	3	2000	...	...	127
...	...	...	...	25.6	39.9	1999–00 ⁱ
...	...	...	...	...	...	124
44	1999	29	1999	...	...	118
...	...	...	...	25.8	31.8	123
...	...	...	...	17.0	19.0	122
21	2002	8	2002	5.4	6.9	1998 ⁱ
20	1996	12	1996	12.2	19.6	120
13	2000	4	2000	...	...	117
37	2000	34	2000	...	...	120
52	1997	46	1997	...	...	117
47	2001–02	28	2001–02	...	3.0	2001–02 ^j
27	1999	13	1999	...	7.5	1999 ^j
...	...	...	...	...	...	124
...	...	...	...	...	...	128
95% CI		95% CI				
37	(33–42)	26	(23–30)	...	...	126
10	(6–15)	5	(3–6)	...	...	123
36	(32–40)	37	(30–45)	...	...	119
...	...	...	...	...	...	121
20	(15–26)	18	(11–27)	...	...	129
11	(8–15)	8	(5–11)	...	...	124
...	...	...	...	...	...	125
...	...	...	...	...	...	123
...	...	...	...	...	...	119



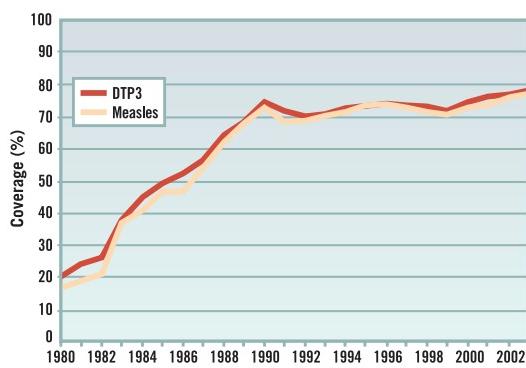


Health Services Coverage Statistics

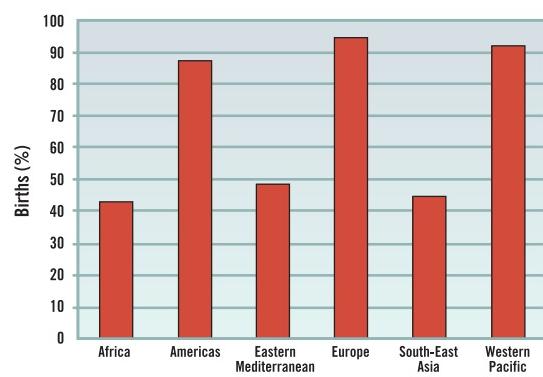
Estimated percentage of people on antiretroviral therapy among those in need, situation as of December 2004



Global immunization coverage of selected vaccines among infants, 1980-2003



Births attended by skilled health personnel, by WHO Region, 1995-2003





	Country	WHO region	Immunization coverage (%) among 1-year-olds ^a			Antenatal care coverage ^b	
			Measles	DTP3	HepB3	(%)	year
			2003	2003	2003		
1	Afghanistan	EMR	50	54	0	52	2003
2	Albania	EUR	93	97	97	81	2002
3	Algeria	AFR	84	87	0	79	2000
4	Andorra	EUR	96	99	84	...	...
5	Angola	AFR	62	46	0	...	...
6	Antigua and Barbuda	AMR	99	99	99	...	...
7	Argentina	AMR	97	88	0	...	...
8	Armenia	EUR	94	94	93	82	2000
9	Australia	WPR	93	92	95	...	...
10	Austria	EUR	79	84	44	...	...
11	Azerbaijan	EUR	98	97	98	70	2001
12	Bahamas	AMR	90	92	88	...	...
13	Bahrain	EMR	100	97	98	63	1995
14	Bangladesh	SEAR	77	85	0	39	2000
15	Barbados	AMR	90	86	91	89	2001
16	Belarus	EUR	99	86	99	...	...
17	Belgium	EUR	75	90	50	...	...
18	Belize	AMR	96	96	96	...	...
19	Benin	AFR	83	88	81	88	2001
20	Bhutan	SEAR	88	95	95	...	...
21	Bolivia	AMR	64	81	81	84	2001
22	Bosnia and Herzegovina	EUR	84	87	0	99	2000
23	Botswana	AFR	90	97	78	99	2001
24	Brazil	AMR	99	96	91	84	1996
25	Brunei Darussalam	WPR	99	99	99	...	...
26	Bulgaria	EUR	96	96	96	...	...
27	Burkina Faso	AFR	76	84	0	72	2003
28	Burundi	AFR	75	74	0	93	2001
29	Cambodia	WPR	65	69	0	44	2000
30	Cameroon	AFR	61	73	0	77	1998
31	Canada	AMR	95	91	0	...	...
32	Cape Verde	AFR	68	78	54	...	...
33	Central African Republic	AFR	35	40	0	...	...
34	Chad	AFR	61	47	0	51	1997
35	Chile	AMR	99	99	0	...	...
36	China	WPR	84	90	70	...	...
37	Colombia	AMR	92	91	93	90	2000
38	Comoros	AFR	63	75	27	87	1996
39	Congo	AFR	50	50	0	...	...
40	Cook Islands	WPR	99	96	93	...	...
41	Costa Rica	AMR	89	88	86	...	...
42	Côte d'Ivoire	AFR	56	54	48	84	1999
43	Croatia	EUR	95	94	0	...	...
44	Cuba	AMR	99	71	99	...	...
45	Cyprus	EUR	86	98	88	...	...
46	Czech Republic	EUR	99	97	86	...	...
47	Democratic People's Republic of Korea	SEAR	95	68	0	98	2000
48	Democratic Republic of the Congo	AFR	54	49	0	72	2001
49	Denmark	EUR	96	96	0	...	...
50	Djibouti	EMR	66	68	0	...	...
51	Dominica	AMR	99	99	0	...	...
52	Dominican Republic	AMR	79	65	81	100	1999
53	Ecuador	AMR	99	89	58	56	1999
54	Egypt	EMR	98	98	98	54	2000
55	El Salvador	AMR	99	88	75	...	...



Births attended by skilled health personnel ^b		Contraceptive prevalence rate ^b		Children under-5 using insecticide-treated nets ^c		TB detection rate under DOTS ^d		TB treatment success under DOTS ^d		Antiretroviral therapy coverage ^e (%)
(%)	year	(%)	year	(%)	year	(%)	year	(%)	year	
Dec 2004										
14	2003	4	2000	...	...	18	2003	87	2002	...
99	2000	15	2000	...	...	29	2003	90	2002	60
92	2000	50	2000	...	...	113	2003	89	2002	...
...	...	...	...	...	...	116	2003	100	2002	>75
45	2001	5	2001	2.3	2001	118	2003	74	2002	10
100	2000	...	...	...	...	45	2003	100	2002	...
99	2001	...	...	...	...	65	2003	58	2002	90
97	2000	22	2000	...	...	43	2003	79	2002	0
100	1999	...	...	...	...	9	2003	78	2002	>75
...	...	47	1996	...	...	41	2002	64	2001	>75
84	2000	12	2001	1.4	2000	28	2003	84	2002	0
99	2002	...	...	...	...	52	2003	59	2002	>75
98	1995	31	1995	...	...	49	2003	88	2002	...
14	2003	44	2000	...	...	33	2003	84	2002	1
91	1999	...	...	...	...	34	2002	...	...	64
100	2002	42	1995	...	...	44	2003	...	...	1
...	...	...	..	...	...	57	2003	69	2002	>75
83	1999	...	...	...	...	98	2003	85	2002	39
66	2001	7	2001	7.4	2001	94	2003	80	2002	17
24	2000	...	...	...	...	32	2003	86	2002	...
65	2002	27	2000	...	...	71	2003	84	2002	19
100	2000	16	2000	...	...	48	2003	95	2002	33
94	2000	39	2000	...	...	68	2003	71	2002	50
88	1996	70	1996	...	...	18	2003	75	2002	86
99	1999	...	...	...	...	138	2003	84	2002	...
...	...	25	1997	...	...	81	2003	86	2002	75
38	2003	5	1999	1.6	2003	18	2003	64	2002	7
25	2000	10	2000	1.3	2000	30	2003	79	2002	9
32	2000	19	2000	...	...	60	2003	92	2002	23
60	2000	7	1998	1.3	2000	86	2003	70	2002	14
98	2001	73	1995	...	...	76	2003	81	2002	>75
89	1998	46	1998	...	...	42	2001	...	...	...
44	2000	7	2000	1.5	2000	6	2003	61	2001	1
16	2000	2	2000	0.6	2000	11	2003	72	2002	...
100	2002	...	...	...	...	115	2003	86	2002	>75
97	1995	83	1997	...	...	43	2003	93	2002	7
86	2000	64	2000	2.8	2000	7	2003	84	2002	50
62	2000	19	2000	9.3	2000	37	2003	96	2002	...
...	...	...	...	...	...	57	2003	71	2002	...
100	1998	60	1996	...	...	39	2002	100	2002	...
98	2001	...	...	...	...	117	2003	85	2002	68
63	2000	7	1999	1.1	2000	39	2003	67	2002	5
100	2002	...	...	...	...	...	...	...	...	>75
100	1999	72	2000	...	...	93	2003	92	2002	100
...	...	...	...	...	...	91	2003	75	2002	>75
100	2002	63	1997	...	...	63	2003	73	2002	100
97	2000	...	...	...	...	91	2003	88	2002	...
61	2001	4	2001	0.7	2001	63	2003	78	2002	2
...	...	...	...	...	...	75	2003	77	2002	>75
61	2003	...	...	...	...	53	2003	82	2002	15
100	1999	...	...	...	...	36	2002	100	2001	...
98	2002	63	2000	...	...	65	2003	78	2002	7
69	1999	50	1999	...	...	37	2003	84	2002	34
69	2003	54	2000	...	...	56	2003	88	2002	...
90	1998	54	1998	...	...	53	2003	88	2002	32



Country	WHO region	Immunization coverage (%) among 1-year-olds ^a			Antenatal care coverage ^b	
		Measles	DTP3	HepB3	(%)	year
		2003	2003	2003		
56	Equatorial Guinea	AFR	51	33	0	...
57	Eritrea	AFR	84	83	83	...
58	Estonia	EUR	95	94	0	...
59	Ethiopia	AFR	52	56	0	27
60	Fiji	WPR	91	94	92	2000
61	Finland	EUR	97	98	0	...
62	France	EUR	86	97	29	...
63	Gabon	AFR	55	38	0	94
64	Gambia	AFR	90	90	90	2000
65	Georgia	EUR	73	76	49	1999
66	Germany	EUR	92	89	81	...
67	Ghana	AFR	80	80	80	90
68	Greece	EUR	88	88	88	...
69	Grenada	AMR	99	97	97	...
70	Guatemala	AMR	75	83	0	86
71	Guinea	AFR	52	45	0	74
72	Guinea-Bissau	AFR	61	77	0	89
73	Guyana	AMR	89	90	90	2000
74	Haiti	AMR	53	43	0	79
75	Honduras	AMR	95	92	92	...
76	Hungary	EUR	99	99	0	...
77	Iceland	EUR	93	97	0	...
78	India	SEAR	67	70	0	65
79	Indonesia	SEAR	72	70	75	97
80	Iran (Islamic Republic of)	EMR	99	99	98	2003
81	Iraq	EMR	90	81	70	...
82	Ireland	EUR	78	85	0	...
83	Israel	EUR	95	97	98	...
84	Italy	EUR	83	96	97	...
85	Jamaica	AMR	78	81	19	...
86	Japan	WPR	99	97	0	...
87	Jordan	EMR	96	97	97	99
88	Kazakhstan	EUR	99	99	99	82
89	Kenya	AFR	72	73	73	2003
90	Kiribati	WPR	88	99	99	...
91	Kuwait	EMR	97	99	99	83
92	Kyrgyzstan	EUR	99	98	99	88
93	Lao People's Democratic Republic	WPR	42	50	50	44
94	Latvia	EUR	99	98	98	...
95	Lebanon	EMR	96	92	88	...
96	Lesotho	AFR	70	79	0	91
97	Liberia	AFR	53	38	0	...
98	Libyan Arab Jamahiriya	EMR	91	93	91	...
99	Lithuania	EUR	98	94	95	...
100	Luxembourg	EUR	91	98	49	...
101	Madagascar	AFR	55	55	55	91
102	Malawi	AFR	77	84	84	2000
103	Malaysia	WPR	92	96	95	...
104	Maldives	SEAR	96	98	98	2001
105	Mali	AFR	68	69	79	53
106	Malta	EUR	90	94	70	2001
107	Marshall Islands	WPR	90	68	74	...
108	Mauritania	AFR	71	76	0	63
109	Mauritius	AFR	94	92	92	2001
110	Mexico	AMR	96	91	91	...



Births attended by skilled health personnel ^b		Contraceptive prevalence rate ^b		Children under-5 using insecticide-treated nets ^c		TB detection rate under DOTS ^d		TB treatment success under DOTS ^d		Antiretroviral therapy coverage ^e (%)
(%)	year	(%)	year	(%)	year	(%)	year	(%)	year	
										Dec 2004
65	2001	...	...	0.7	2000	86	1998	82	1997	...
28	2002	5	2002	4.2	2002	18	2003	82	2002	...
100	2002	...	...	...	...	69	2003	67	2002	20
6	2000	6	2000	...	...	36	2003	76	2002	5
100	1998	...	...	...	...	63	2003	85	2002	...
100	2002	...	...	...	...	...	...	...	...	>75
...	...	...	...	...	...	...	...	...	...	>75
86	2000	13	2000	...	...	93	2003	47	2002	29
55	2000	9	2000	14.7	2000	70	2003	74	2002	14
96	1999	20	2000	...	...	52	2003	65	2002	20
...	...	...	...	...	...	55	2003	69	2002	>75
47	2003	13	1998	3.5	2003	40	2003	60	2002	4
...	...	...	...	...	...	...	...	...	...	>75
100	2000	...	...	...	...	...	...	...	...	...
41	2003	31	1999	1.2	1999	44	2003	84	2002	30
35	1999	4	1999	...	...	51	2003	72	2002	4
35	2000	4	2000	7.4	2000	55	2003	48	2002	...
86	2000	36	2000	...	...	31	2003	85	2002	28
24	2000	23	2000	...	...	46	2003	78	2002	8
56	2001	51	2001	...	...	78	2003	87	2002	30
...	...	...	...	...	...	41	2003	55	2002	>75
...	...	...	...	...	...	28	2003	100	2002	>75
43	2000	43	1999	...	...	47	2003	87	2002	4
66	2003	57	2003	0.1	2000	33	2003	86	2002	24
90	2000	56	1997	...	...	59	2003	85	2002	...
72	2000	...	...	<0.1	2000	20	2003	91	2002	...
100	2002	...	...	...	...	...	...	...	...	>75
...	...	...	...	...	...	55	2003	81	2002	>75
...	...	39	1996	...	...	79	2003	79	2002	>75
95	1997	63	1997	...	...	90	2003	49	2002	18
100	1996	...	...	...	...	40	2003	76	2002	>75
100	2002	39	2002	...	...	89	2003	89	2002	...
99	1999	57	1999	...	...	86	2003	78	2002	1
42	2003	32	1998	4.6	2003	46	2003	79	2002	13
85	1998	...	...	...	...	419	2003	94	2001	...
98	1995	41	1996	...	...	67	2003	55	2002	...
98	1997	49	1997	...	...	57	2003	82	2002	...
19	2001	29	2000	14.6	2000	47	2003	78	2002	64
100	2002	39	1995	...	...	83	2003	76	2002	>75
88	1996	37	1996	...	...	67	2003	91	2002	...
60	2000	30	2000	...	...	70	2003	52	2002	5
51	2000	...	...	...	...	46	1998	75	1997	...
94	1995	26	1995	...	...	147	2003	61	2002	...
...	...	31	1995	...	...	85	2003	72	2002	30
100	2002	...	...	...	...	126	2003	...	...	>75
46	2000	12	2000	0.2	2000	77	2003	74	2002	0
61	2002	26	2000	35.5	2004	35	2003	72	2002	8
97	2001	...	...	...	...	69	2003	76	2002	...
70	2000	...	...	...	...	106	2003	95	2002	...
41	2001	7	2001	...	...	18	2003	50	2002	...
...	...	...	...	...	...	19	2003	60	2002	>75
95	1998	...	...	...	...	140	2003	100	2002	...
57	2001	5	2000	2.1	2004	...	...	...	...	4
99	1999	...	...	...	...	28	2003	92	2002	...
86	1997	60	1997	...	...	81	2003	84	2002	74



Country	WHO region	Immunization coverage (%) among 1-year-olds ^a			Antenatal care coverage ^b	
		Measles	DTP3	HepB3	(%)	year
		2003	2003	2003		
111	Micronesia (Federated States of)	WPR	91	92	89	...
112	Monaco	EUR	99	99	99	...
113	Mongolia	WPR	98	98	98	...
114	Morocco	EMR	90	91	90	...
115	Mozambique	AFR	77	72	72	71 1997
116	Myanmar	SEAR	75	77	0	...
117	Namibia	AFR	70	82	0	85 2000
118	Nauru	WPR	40	80	75	...
119	Nepal	SEAR	75	78	15	49 2001
120	Netherlands	EUR	96	98	0	...
121	New Zealand	WPR	85	90	90	...
122	Nicaragua	AMR	93	86	86	85 2001
123	Niger	AFR	64	52	0	39 1998
124	Nigeria	AFR	35	25	0	61 2003
125	Niue	WPR	86	95	95	...
126	Norway	EUR	84	90	0	...
127	Oman	EMR	98	99	99	77 1995
128	Pakistan	EMR	61	67	0	36 1997
129	Palau	WPR	99	99	99	...
130	Panama	AMR	83	86	86	...
131	Papua New Guinea	WPR	49	54	53	...
132	Paraguay	AMR	91	77	77	...
133	Peru	AMR	95	89	60	85 2000
134	Philippines	WPR	80	79	40	94 2003
135	Poland	EUR	97	99	97	...
136	Portugal	EUR	96	99	94	...
137	Qatar	EMR	93	92	98	62 1998
138	Republic of Korea	WPR	96	97	91	...
139	Republic of Moldova	EUR	96	98	99	99 1997
140	Romania	EUR	97	97	98	89 1999
141	Russian Federation	EUR	96	98	94	96 1999
142	Rwanda	AFR	90	96	96	93 2001
143	Saint Kitts and Nevis	AMR	98	99	99	...
144	Saint Lucia	AMR	90	90	14	...
145	Saint Vincent and the Grenadines	AMR	94	99	31	...
146	Samoa	WPR	99	94	97	...
147	San Marino	EUR	91	96	96	...
148	Sao Tome and Principe	AFR	87	94	43	91 2000
149	Saudi Arabia	EMR	96	95	95	77 1996
150	Senegal	AFR	60	73	0	82 1999
151	Serbia and Montenegro	EUR	87	89	0	...
152	Seychelles	AFR	99	99	99	...
153	Sierra Leone	AFR	73	70	0	82 2001
154	Singapore	WPR	88	92	92	...
155	Slovakia	EUR	99	99	99	...
156	Slovenia	EUR	94	92	0	...
157	Solomon Islands	WPR	78	71	78	...
158	Somalia	EMR	40	40	0	...
159	South Africa	AFR	83	94	94	89 1998
160	Spain	EUR	97	98	83	...
161	Sri Lanka	SEAR	99	99	0	...
162	Sudan	EMR	57	50	0	...
163	Suriname	AMR	71	74	0	91 2001
164	Swaziland	AFR	94	95	95	...
165	Sweden	EUR	94	98	0	...



Births attended by skilled health personnel ^b		Contraceptive prevalence rate ^b		Children under-5 using insecticide-treated nets ^c		TB detection rate under DOTS ^d		TB treatment success under DOTS ^d		Antiretroviral therapy coverage ^e (%)
(%)	year	(%)	year	(%)	year	(%)	year	(%)	year	
Dec 2004										
93	1999	...	...	...	...	92	2003	91	2002	...
...	...	...	...	...	...	...	...	...	...	>75
99	2000	54	2000	...	...	68	2003	87	2002	...
40	1995	42	1995	...	...	83	2003	89	2002	...
48	1997	5	1997	...	...	45	2003	78	2002	4
56	1997	28	1997	...	...	73	2003	81	2002	3
76	2000	...	...	...	...	86	2003	62	2002	28
...	...	...	...	...	...	57	2003	50	2002	...
11	2001	35	2001	...	...	60	2003	86	2002	1
100	1995	...	...	...	...	50	2003	68	2002	>75
100	1995	72	1995	...	...	57	2003	60	2002	>75
67	2001	66	2001	...	...	91	2003	82	2002	4
16	2000	4	2000	1.0	2000	54	2003	60	1999	...
35	2003	9	1999	1.2	2003	18	2003	79	2002	2
100	1996	...	...	...	...	364	2002	100	2002	...
...	...	...	...	...	...	46	2003	80	2002	>75
95	2000	18	1995	...	...	81	2003	92	2002	...
20	1998	20	2001	...	...	17	2003	77	2002	...
100	1998	...	...	...	...	90	2003	38	2002	...
90	1998	...	...	...	...	92	2003	73	2002	>75
53	1996	20	1996	...	...	15	2003	53	2002	...
61	1998	48	1998	...	...	18	2003	92	2002	15
59	2000	50	2000	...	...	81	2003	92	2002	18
60	2003	28	1998	...	...	68	2003	88	2002	...
100	2002	...	...	...	...	56	2003	86	2002	>75
100	2000	...	...	...	...	87	2003	82	2002	>75
99	1998	32	1998	...	...	57	2003	75	2002	...
100	1997	67	1997	...	...	23	2003	83	2002	...
99	1997	43	2000	...	...	39	2003	61	2002	67
98	1999	30	1999	...	...	38	2003	76	2002	>75
99	2002	...	...	...	...	9	2003	67	2002	3
31	2000	6	2000	5.0	2000	27	2003	58	2002	18
100	1995	...	...	...	...	89	1999	50	1999	...
100	1995	...	...	...	...	71	2003	25	2002	...
...	...	...	...	...	...	38	2003	80	2001	...
100	1998	...	...	...	...	51	2003	84	2002	...
...	...	...	...	...	...	115	2000	100	1997	>75
79	2000	27	2000	22.8	2000	...	...	...	...	...
91	1996	29	1996	...	...	38	2003	76	2002	...
58	2000	8	1997	1.7	2000	59	2003	66	2002	...
93	2001	33	2000	...	...	37	2003	91	2002	>75
...	...	...	...	...	...	40	2003	45	2002	...
42	2000	4	2000	1.5	2000	33	2003	81	2002	...
100	1998	53	1997	...	...	44	2003	87	2002	...
99	2002	...	...	...	...	34	2003	85	2002	>75
100	2002	...	...	...	...	70	2003	85	2002	>75
85	1999	...	...	...	...	107	2003	90	2002	...
34	1999	...	...	0.3	1999	29	2003	89	2002	0
84	1998	55	1998	...	...	118	2003	68	2002	7
...	...	67	1995	...	...	...	...	...	...	>75
97	2000	...	...	...	...	70	2003	81	2002	7
87	2000	...	...	0.4	2000	34	2003	78	2002	...
85	2000	41	2000	2.7	2000	116	1999	71	1998	25
70	2000	26	2000	0.1	2000	35	2003	47	2002	16
...	...	...	...	...	...	62	2003	73	2002	>75



Country	WHO region	Immunization coverage (%) among 1-year-olds ^a			Antenatal care coverage ^b	
		Measles	DTP3	HepB3	(%)	year
		2003	2003	2003		
166 Switzerland	EUR	82	95	0	...	...
167 Syrian Arab Republic	EMR	98	99	98	...	...
168 Tajikistan	EUR	89	82	57	75	2000
169 Thailand	SEAR	94	96	95	...	...
170 The former Yugoslav Republic of Macedonia	EUR	96	96	0	...	...
171 Timor-Leste	SEAR	60	70	0	...	...
172 Togo	AFR	58	64	0	78	1998
173 Tonga	WPR	99	98	93	...	...
174 Trinidad and Tobago	AMR	88	91	76	96	2001
175 Tunisia	EMR	90	95	92	...	...
176 Turkey	EUR	75	68	68	67	1998
177 Turkmenistan	EUR	97	98	97	87	2000
178 Tuvalu	WPR	95	93	95	...	...
179 Uganda	AFR	82	81	63	92	2001
180 Ukraine	EUR	99	97	77	90	1999
181 United Arab Emirates	EMR	94	94	92	97	1995
182 United Kingdom	EUR	80	91	0	...	...
183 United Republic of Tanzania	AFR	97	95	95	96	1999
184 United States of America	AMR	93	96	92	...	...
185 Uruguay	AMR	95	91	91	...	...
186 Uzbekistan	EUR	99	98	99	95	1996
187 Vanuatu	WPR	48	49	56	...	...
188 Venezuela	AMR	82	68	75	...	...
189 Viet Nam	WPR	93	99	78	70	2002
190 Yemen	EMR	66	66	42	34	1997
191 Zambia	AFR	84	80	0	94	2002
192 Zimbabwe	AFR	80	80	80	82	1999

Region						
African Region	AFR	63	61	29	70	
Region of the Americas	AMR	93	91	77	84	
South-East Asia Region	SEAR	71	73	13	66	
European Region	EUR	90	91	67	84	
Eastern Mediterranean Region	EMR	75	77	44	46	
Western Pacific Region	WPR	85	89	65	77	

Figures computed by WHO to improve comparability where appropriate; they are not necessarily the official statistics of Member States, which may use alternative rigorous methods.

... Data not available or not applicable.

a) World Health Organization, Department of Immunization Vaccines and Biologicals, Vaccine Assessment and Monitoring Team. (<http://www.who.int/vaccines-surveillance>, accessed on 16 April 2005)

b) The World Health Report 2005: make every mother and child count. Geneva, World Health Organization, 2005. (<http://www.who.int/whr/2005/en/index.html>)

c) The WHO Global Roll Back Malaria database. (http://www.who.int/globalatlas/autologin/malaria_login.asp)

d) WHO report 2005. Global Tuberculosis Control; Surveillance, Planning, Financing. Geneva, World Health Organization, 2005. (http://www.who.int/tb/publications/global_report/2005/pdf/Full.pdf)

e) "3 by 5" Progress Report, December 2004. Geneva, World Health Organization and Joint United Nations Programme on HIV/AIDS, 2004 with updates received from the WHO Regional Office for Europe in January 2005. (<http://www.who.int/3by5/publications/progressreport/en>)



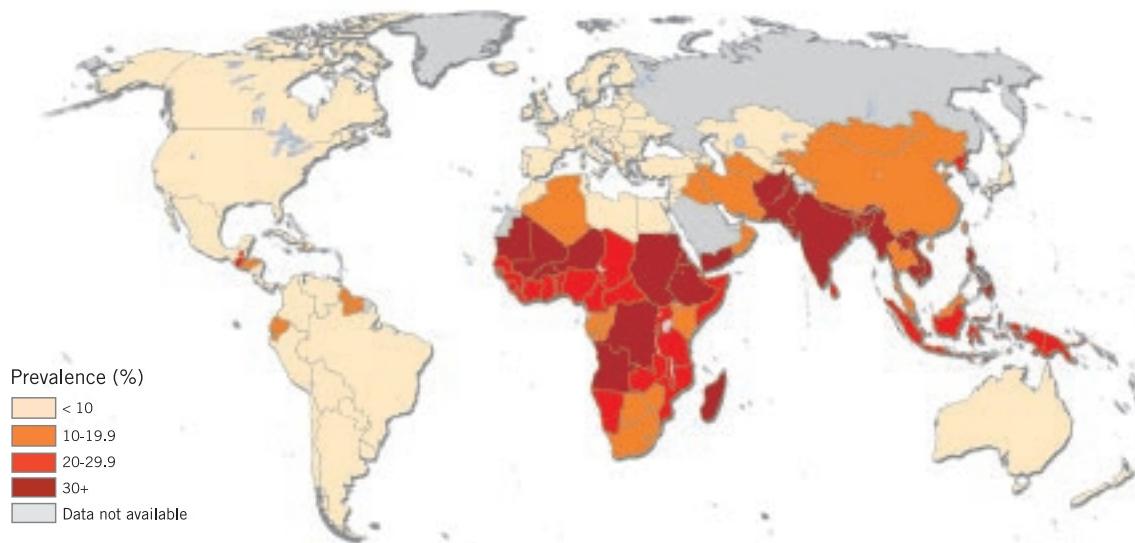
Births attended by skilled health personnel ^b		Contraceptive prevalence rate ^b		Children under-5 using insecticide-treated nets ^c		TB detection rate under DOTS ^d		TB treatment success under DOTS ^d		Antiretroviral therapy coverage ^e (%)
(%)	year	(%)	year	(%)	year	(%)	year	(%)	year	
Dec 2004										
...	...	78	1995	...	...	...	2003	87	2002	>75
...	...	...	...	...	...	45	2003	87	2002	...
71	2000	27	2000	1.9	2000	2	2002	79	2002	0
99	2002	70	1997	...	...	72	2003	74	2002	44
98	2002	...	...	...	...	49	2003	79	2002	10
24	2002	...	...	3.9	2002	53	2003	81	2002	...
49	2000	9	2000	2.0	2000	17	2003	68	2002	12
92	2000	...	...	...	...	80	2003	83	2002	...
96	2000	33	2000	...	...	...	...	...	...	16
90	2000	51	...	...	...	91	2003	92	2002	...
83	2003	38	1998	...	...	...	...	...	...	>75
97	2000	53	2000	...	...	49	2003	77	2002	0
99	1997	...	...	...	...	...	...	...	...	...
39	2001	18	2001	0.2	2001	44	2003	60	2002	40
99	1999	38	1999	...	...	...	...	...	...	10
99	1995	24	1995	...	...	32	2003	79	2002	...
99	1998	81	2002	...	...	...	...	...	...	>75
36	1999	17	1999	2.1	1999	43	2003	80	2002	1
99	1997	71	1995	...	...	89	2003	70	2002	>75
100	1997	...	...	...	...	80	2003	82	2002	100
96	2000	63	2000	...	...	20	2003	80	2002	0
89	1995	...	...	...	...	70	2003	79	2002	...
94	2000	...	...	...	...	80	2003	82	2002	51
85	2002	56	2000	15.8	2000	86	2003	92	2002	1
22	1997	10	1997	...	...	43	2003	82	2002	...
43	2002	23	2002	6.5	2002	65	2003	83	2002	13
73	1999	50	1999	...	...	42	2003	67	2002	3
43		17		2.7		50	2003	73	2002	8
87		66		...		50	2003	81	2002	65
45		46		...		45	2003	85	2002	9
94		48		...		23	2003	76	2002	10
48		35		...		28	2003	84	2002	5
92		77		...		50	2003	91	2002	9



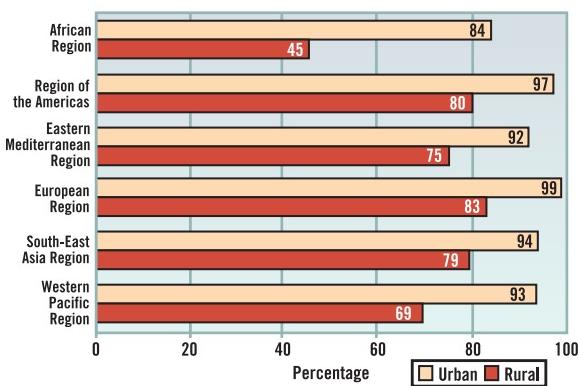


Behavioural and Environmental Risk Factor Statistics

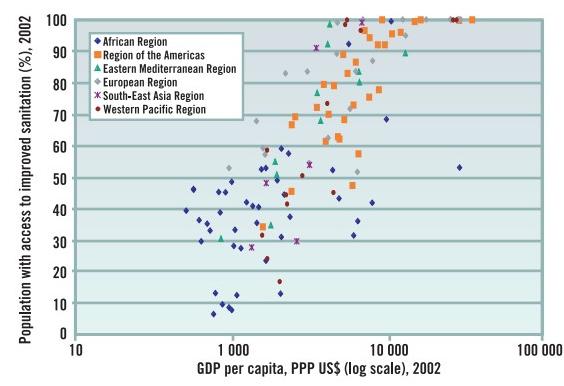
Global prevalence of underweight in children under five years of age, 1995-2004



Access to improved water sources, urban and rural areas, by WHO region, 2002



Access to improved sanitation by GDP per capita, countries by WHO region, 2002





	Country	WHO region	Access to improved water sources (%) ^a		Access to improved sanitation (%) ^a		Population using solid fuels ^b (%)
			Urban 2002	Rural 2002	Urban 2002	Rural 2002	
1	Afghanistan	EMR	19	11	16	5	>95
2	Albania	EUR	99	95	99	81	50
3	Algeria	AFR	92	80	99	82	<5
4	Andorra	EUR	100	100	100	100	<5
5	Angola	AFR	70	40	56	16	>95
6	Antigua and Barbuda	AMR	95	89	98	94	46
7	Argentina	AMR	97	...	...	...	<5
8	Armenia	EUR	99	80	96	61	26
9	Australia	WPR	100	100	100	100	<5
10	Austria	EUR	100	100	100	100	<5
11	Azerbaijan	EUR	95	59	73	36	49
12	Bahamas	AMR	98	86	100	100	<5
13	Bahrain	EMR	100	...	100	...	<5
14	Bangladesh	SEAR	82	72	75	39	88
15	Barbados	AMR	100	100	99	100	<5
16	Belarus	EUR	100	100	...	...	19
17	Belgium	EUR	100	...	...	...	<5
18	Belize	AMR	100	82	71	25	43
19	Benin	AFR	79	60	58	12	95
20	Bhutan	SEAR	86	60	65	70	...
21	Bolivia	AMR	95	68	58	23	25
22	Bosnia and Herzegovina	EUR	100	96	99	88	51
23	Botswana	AFR	100	90	57	25	65
24	Brazil	AMR	96	58	83	35	12
25	Brunei Darussalam	WPR	...	...	...	...	...
26	Bulgaria	EUR	100	100	100	100	17
27	Burkina Faso	AFR	82	44	45	5	>95
28	Burundi	AFR	90	78	47	35	>95
29	Cambodia	WPR	58	29	53	8	>95
30	Cameroon	AFR	84	41	63	33	83
31	Canada	AMR	100	99	100	99	<5
32	Cape Verde	AFR	86	73	61	19	36
33	Central African Republic	AFR	93	61	47	12	>95
34	Chad	AFR	40	32	30	0	>95
35	Chile	AMR	100	59	96	64	<5
36	China	WPR	92	68	69	29	80
37	Colombia	AMR	99	71	96	54	15
38	Comoros	AFR	90	96	38	15	76
39	Congo	AFR	72	17	14	2	84
40	Cook Islands	WPR	98	88	100	100	...
41	Costa Rica	AMR	100	92	89	97	23
42	Côte d'Ivoire	AFR	98	74	61	23	74
43	Croatia	EUR	...	...	...	...	12
44	Cuba	AMR	95	78	99	95	21
45	Cyprus	EUR	100	100	100	100	<5
46	Czech Republic	EUR	...	...	...	...	<5
47	Democratic People's Republic of Korea	SEAR	100	100	58	60	...
48	Democratic Republic of the Congo	AFR	83	29	43	23	>95
49	Denmark	EUR	100	100	...	...	<5
50	Djibouti	EMR	82	67	55	27	6
51	Dominica	AMR	100	90	86	75	21
52	Dominican Republic	AMR	98	85	67	43	14
53	Ecuador	AMR	92	77	80	59	<5
54	Egypt	EMR	100	97	84	56	<5
55	El Salvador	AMR	91	68	78	40	33



Tobacco use by adolescents (13–15) ^c				Per capita alcohol consumption (>15) ^d (in litres of pure alcohol)	Condom use by young people (15–24) who had high risk sex ^e			
(%)	year	(%)	year		(%)	year	(%)	year
Males		Females			Both sexes 2000–2001		Males	
...
...	...	...	...	2.5	...	...	...	...
...	...	...	...	<0.1	...	...	...	...
...
...	...	...	...	2.9	...	...	...	...
16	2000	11	2000	4.2	...	...	...	...
31	2000	34	2000	8.6	...	...	...	...
...	...	...	...	1.2	44	2000	...	...
...	...	...	...	9.2	...	...	...	...
...	...	...	...	12.6	...	...	...	...
...	...	...	...	6.9	...	...	...	...
23	2000	14	2000	9.2	...	...	...	...
34	2001	12	2001	2.6	...	...	...	...
...	...	...	...	0.0	...	...	...	...
16	2002	13	2002	6.7	...	...	...	...
...	...	...	...	8.1	...	...	...	...
...	...	...	...	10.1	...	...	...	...
24	2003	14	2003	4.5	...	...	...	...
24	2003	10	2003	1.2	34	2001	19	2001
...	...	...	...	0.6	...	...	...	...
35	2000	24	2000	3.4	...	...	...	...
19	2003	12	2003	8.6	...	...	...	...
17	2001	12	2001	5.4	88	2001	75	2001
21	2002	18	2002	5.3	59	1996	32	1996
...	...	...	...	0.5	...	...	...	...
33	2002	42	2002	7.1	...	...	...	...
18	2001	7	2001	4.4	55	1999	41	1999
...	...	...	...	9.3	...	...	...	...
11	2003	3	2003	0.4	...	...	...	...
...	...	...	...	3.7	31	1998	16	1998
...	...	...	...	8.3	...	...	...	...
...	...	...	...	3.7	...	...	...	...
...	...	...	...	1.7	...	...	...	...
...	...	...	...	0.2	...	...	...	...
33	2000	42	2000	6.0	...	...	...	...
14	2003	6	2003	4.5	...	...	...	...
30	2001	29	2001	5.9	...	...	30	2000
...	...	...	...	0.1	...	...	...	...
...	...	...	...	2.4	...	...	...	...
...
20	2002	19	2002	5.5	...	...	...	...
...	...	...	...	1.7	56	1998	25	1998
19	2002	15	2002	12.7	...	...	...	...
17	2001	18	2001	3.7	...	...	...	...
...	...	...	...	6.7	...	...	...	...
36	2002	33	2002	16.2	...	...	...	...
...	...	...	...	5.7	...	...	...	...
...	...	...	...	2.0	...	...	...	...
...	...	...	...	11.9	...	...	...	...
...	...	...	...	1.1	...	...	...	...
24	2000	16	2000	9.2	...	...	...	...
...	...	...	...	6.1	52	2002	29	2002
21	2001	17	2001	2.0	...	...	...	...
23	2001	16	2001	0.1	...	...	...	...
25	2003	15	2003	3.5	...	...	...	...

Country	WHO region	Access to improved water sources (%) ^a		Access to improved sanitation (%) ^a		Population using solid fuels ^b (%)
		Urban 2002	Rural 2002	Urban 2002	Rural 2002	
56 Equatorial Guinea	AFR	45	42	60	46	...
57 Eritrea	AFR	72	54	34	3	80
58 Estonia	EUR	...	...	93	...	15
59 Ethiopia	AFR	81	11	19	4	>95
60 Fiji	WPR	...	...	99	98	40
61 Finland	EUR	100	100	100	100	<5
62 France	EUR	100	...	...	...	<5
63 Gabon	AFR	95	47	37	30	28
64 Gambia	AFR	95	77	72	46	>95
65 Georgia	EUR	90	61	96	69	42
66 Germany	EUR	100	100	...	...	<5
67 Ghana	AFR	93	68	74	46	88
68 Greece	EUR	...	...	...	...	<5
69 Grenada	AMR	97	93	96	97	48
70 Guatemala	AMR	99	92	72	52	62
71 Guinea	AFR	78	38	25	6	>95
72 Guinea-Bissau	AFR	79	49	57	23	95
73 Guyana	AMR	83	83	86	60	59
74 Haiti	AMR	91	59	52	23	>95
75 Honduras	AMR	99	82	89	52	57
76 Hungary	EUR	100	98	100	85	<5
77 Iceland	EUR	100	100	...	...	<5
78 India	SEAR	96	82	58	18	74
79 Indonesia	SEAR	89	69	71	38	72
80 Iran (Islamic Republic of)	EMR	98	83	86	78	<5
81 Iraq	EMR	97	50	95	48	<5
82 Ireland	EUR	100	...	...	...	<5
83 Israel	EUR	100	100	100	...	<5
84 Italy	EUR	100	...	...	...	<5
85 Jamaica	AMR	98	87	90	68	45
86 Japan	WPR	100	100	100	100	<5
87 Jordan	EMR	91	91	94	85	<5
88 Kazakhstan	EUR	96	72	87	52	5
89 Kenya	AFR	89	46	56	43	81
90 Kiribati	WPR	77	53	59	22	...
91 Kuwait	EMR	...	...	...	...	<5
92 Kyrgyzstan	EUR	98	66	75	51	76
93 Lao People's Democratic Republic	WPR	66	38	61	14	>95
94 Latvia	EUR	...	...	...	...	10
95 Lebanon	EMR	100	100	100	87	<5
96 Lesotho	AFR	88	74	61	32	83
97 Liberia	AFR	72	52	49	7	...
98 Libyan Arab Jamahiriya	EMR	72	68	97	96	<5
99 Lithuania	EUR	...	...	...	...	<5
100 Luxembourg	EUR	100	100	...	...	<5
101 Madagascar	AFR	75	34	49	27	>95
102 Malawi	AFR	96	62	66	42	>95
103 Malaysia	WPR	96	94	...	98	<5
104 Maldives	SEAR	99	78	100	42	...
105 Mali	AFR	76	35	59	38	>95
106 Malta	EUR	100	100	100	...	<5
107 Marshall Islands	WPR	80	95	93	59	...
108 Mauritania	AFR	63	45	64	9	65
109 Mauritius	AFR	100	100	100	99	<5
110 Mexico	AMR	97	72	90	39	12



Tobacco use by adolescents (13–15) ^c				Per capita alcohol consumption (>15) ^d (in litres of pure alcohol)	Condom use by young people (15–24) who had high risk sex ^e			
(%)	year	(%)	year		(%)	year	(%)	year
Males		Females			Both sexes 2000–2001		Males	
...	...	...	...	0.9	...	...	...	...
...	...	...	...	1.5	...	...	...	...
35	2002	30	2002	9.9	...	...	...	...
12	2003	6	2003	0.9	30	2000	17	2000
24	1999	13	1999	1.7	...	...	...	...
...	...	...	...	10.4	...	...	...	...
...	...	...	...	13.5	...	...	...	...
...	...	...	...	8.0	48	2000	33	2000
...	...	...	...	2.3	...	...	...	...
34	2002	13	2002	2.4	...	...	...	...
...	...	...	...	12.9	...	...	...	...
20	2000	19	2000	1.6	52	2003	33	2003
...	...	...	...	9.3	...	...	...	...
18	2000	14	2000	7.4	...	...	...	...
18	2002	13	2002	1.6	...	...	...	...
...	...	...	...	0.1	32	1999	17	1999
...	...	...	...	2.8	...	...	...	...
15	2004	5	2004	5.8	...	...	...	...
18	2001	18	2001	6.5	30	2000	19	2000
27	2003	19	2003	2.3	...	...	...	...
34	2002	33	2002	11.9	...	...	...	...
...	...	...	...	5.7	...	...	...	...
29	2001	20	2001	0.8	59	2001	51	2001
37	2000	5	2000	0.1	...	...	...	...
14	2003	5	2003	0.0	...	...	...	...
...	...	...	...	0.2	...	...	...	...
...	...	...	...	14.5	...	...	...	...
...	...	...	...	2.0	...	...	...	...
...	...	...	...	9.1	...	...	...	...
24	2001	15	2001	3.4	...	...	...	...
...	...	...	...	7.4	...	...	...	...
28	2004	12	2004	0.1	...	...	...	...
...	...	...	...	2.9	65	1999	32	1999
21	2003	14	2003	1.7	47	2003	25	2003
...	...	...	...	1.7	...	...	...	...
33	2001	18	2001	0.0	...	...	...	...
...	...	...	...	5.5	...	...	...	...
18	2003	4	2003	6.7	...	...	...	...
41	2002	33	2002	9.3	...	...	...	...
46	2001	40	2001	4.1	...	...	...	...
32	2002	20	2002	1.8	...	...	...	...
...	...	...	...	3.1	...	...	...	...
19	2003	9	2003	0.0	...	...	...	...
40	2001	32	2001	12.3	...	...	...	...
...	...	...	...	17.5	...	...	...	...
...	...	...	...	1.4	...	...	...	...
20	2001	15	2001	1.4	38	2000	32	2000
...	...	...	...	1.1	...	...	...	...
...	...	...	...	1.7	...	...	...	...
45	2001	13	2001	0.5	30	2001	14	2001
...	...	...	...	6.7	...	...	...	...
...
34	2001	23	2001	<0.1	...	...	...	...
...	...	...	...	3.2	...	...	...	...
24	2002	20	2002	4.6	...	...	...	...

Country	WHO region	Access to improved water sources (%) ^a		Access to improved sanitation (%) ^a		Population using solid fuels ^b (%)
		Urban 2002	Rural 2002	Urban 2002	Rural 2002	
111 Micronesia (Federated States of)	WPR	95	94	61	14	...
112 Monaco	EUR	100	...	100	...	<5
113 Mongolia	WPR	87	30	75	37	51
114 Morocco	EMR	99	56	83	31	5
115 Mozambique	AFR	76	24	51	14	80
116 Myanmar	SEAR	95	74	96	63	95
117 Namibia	AFR	98	72	66	14	63
118 Nauru	WPR	...	...	...	...	...
119 Nepal	SEAR	93	82	68	20	80
120 Netherlands	EUR	100	99	100	100	<5
121 New Zealand	WPR	100	...	...	...	<5
122 Nicaragua	AMR	93	65	78	51	58
123 Niger	AFR	80	36	43	4	>95
124 Nigeria	AFR	72	49	48	30	67
125 Niue	WPR	100	100	100	100	...
126 Norway	EUR	100	100	...	...	<5
127 Oman	EMR	81	72	97	61	<5
128 Pakistan	EMR	95	87	92	35	72
129 Palau	WPR	79	94	96	52	...
130 Panama	AMR	99	79	89	51	33
131 Papua New Guinea	WPR	88	32	67	41	90
132 Paraguay	AMR	100	62	94	58	58
133 Peru	AMR	87	66	72	33	33
134 Philippines	WPR	90	77	81	61	47
135 Poland	EUR	100	...	...	...	<5
136 Portugal	EUR	...	...	...	...	<5
137 Qatar	EMR	100	100	100	100	<5
138 Republic of Korea	WPR	97	71	...	...	<5
139 Republic of Moldova	EUR	97	88	86	52	63
140 Romania	EUR	91	16	86	10	23
141 Russian Federation	EUR	99	88	93	70	7
142 Rwanda	AFR	92	69	56	38	>95
143 Saint Kitts and Nevis	AMR	99	99	96	96	<5
144 Saint Lucia	AMR	98	98	89	89	63
145 Saint Vincent and the Grenadines	AMR	...	93	...	96	31
146 Samoa	WPR	91	88	100	100	70
147 San Marino	EUR	...	...	...	...	<5
148 Sao Tome and Principe	AFR	89	73	32	20	95
149 Saudi Arabia	EMR	97	...	100	...	<5
150 Senegal	AFR	90	54	70	34	41
151 Serbia and Montenegro	EUR	99	86	97	77	...
152 Seychelles	AFR	100	75	...	100	<5
153 Sierra Leone	AFR	75	46	53	30	<5
154 Singapore	WPR	100	...	100	...	<5
155 Slovakia	EUR	100	100	100	100	<5
156 Slovenia	EUR	...	...	...	...	8
157 Solomon Islands	WPR	94	65	98	18	95
158 Somalia	EMR	32	27	47	14	...
159 South Africa	AFR	98	73	86	44	18
160 Spain	EUR	...	...	...	...	<5
161 Sri Lanka	SEAR	99	72	98	89	67
162 Sudan	EMR	78	64	50	24	>95
163 Suriname	AMR	98	73	99	76	...
164 Swaziland	AFR	87	42	78	44	68
165 Sweden	EUR	100	100	100	100	<5



Tobacco use by adolescents (13–15) ^c				Per capita alcohol consumption (>15) ^d (in litres of pure alcohol)	Condom use by young people (15–24) who had high risk sex ^e			
(%)	year	(%)	year		(%)	year	(%)	year
Males		Females		Both sexes 2000–2001	Males		Females	
...	...	...	...	0.6	...	...	...	...
...
...	...	...	...	2.0	...	...	...	...
17	2001	9	2001	0.4	...	...	...	...
11	2002	10	2002	1.7	33	2003	29	2003
37	2001	5	2001	0.4	...	...	...	...
...	...	...	...	2.4	69	2000	48	2000
...
15	2001	6	2001	0.1	...	...	...	...
...	...	...	...	9.7	...	...	...	...
...	...	...	...	9.8	...	...	...	...
...	...	...	...	2.5	...	...	...	...
27	2001	14	2001	0.1	...	...	...	...
24	2001	17	2001	10.0	46	2003	24	2003
...
...	...	...	...	5.8	...	...	...	...
27	2003	9	2003	1.3	...	...	...	...
...	...	...	...	<0.1	...	...	...	...
55	2001	62	2001	...	...	...	...	...
19	2002	16	2002	6.0	...	...	...	...
...	...	...	...	1.0	...	...	...	...
24	2003	23	2003	6.7	...	...	...	...
24	2001	16	2001	4.7	...	...	19	2000
21	2003	8	2003	3.8	...	...	...	...
33	1999	24	1999	8.7	...	...	...	...
...	...	...	...	12.5	...	...	...	...
...	...	...	...	0.4	...	...	...	...
...	...	...	...	7.7	...	...	...	...
...	...	...	...	13.9	...	...	...	...
...	...	...	...	7.6	...	...	...	...
41	2001	29	2001	10.6	...	...	...	...
...	...	...	...	6.8	55	2000	23	2000
20	2002	16	2002	7.6	...	...	...	...
19	2001	10	2001	10.5	...	...	...	...
27	2001	20	2001	6.6	...	...	...	...
...	...	...	...	1.4	...	...	...	...
...
...	...	...	...	6.1	...	...	...	...
...	...	...	...	0.0	...	...	...	...
25	2002	6	2002	0.5	...	...	...	...
16	2003	17	2003	...	...	...	...	...
36	2002	25	2002	3.6	...	...	...	...
...	...	...	...	6.6	...	...	...	...
...	...	...	...	2.7	...	...	...	...
27	2002	23	2002	12.4	...	...	...	...
27	2003	29	2003	6.6	...	...	...	...
...	...	...	...	0.9	...	...	...	...
...	...	...	...	0.0	...	...	...	...
38	2003	27	2003	7.8	...	...	20	1998
...	...	...	...	12.3	...	...	...	...
...	...	...	...	0.2	...	...	...	...
20	2001	13	2001	0.3	...	...	...	...
...	...	...	...	5.8	...	...	...	...
21	2001	10	2001	9.5	...	...	...	...
...	...	...	...	6.9	...	...	...	...



	Country	WHO region	Access to improved water sources (%) ^a		Access to improved sanitation (%) ^a		Population using solid fuels ^b (%)
			Urban 2002	Rural 2002	Urban 2002	Rural 2002	
166	Switzerland	EUR	100	100	100	100	<5
167	Syrian Arab Republic	EMR	94	64	97	56	32
168	Tajikistan	EUR	93	47	71	47	75
169	Thailand	SEAR	95	80	97	100	72
170	The former Yugoslav Republic of Macedonia	EUR	...	...	...	...	30
171	Timor-Leste	SEAR	73	51	65	30	...
172	Togo	AFR	80	36	71	15	76
173	Tonga	WPR	100	100	98	96	56
174	Trinidad and Tobago	AMR	92	88	100	100	8
175	Tunisia	EMR	94	60	90	62	5
176	Turkey	EUR	96	87	94	62	11
177	Turkmenistan	EUR	93	54	77	50	<5
178	Tuvalu	WPR	94	92	92	83	...
179	Uganda	AFR	87	52	53	39	>95
180	Ukraine	EUR	100	94	100	97	6
181	United Arab Emirates	EMR	...	...	100	100	<5
182	United Kingdom	EUR	100	...	...	...	<5
183	United Republic of Tanzania	AFR	92	62	54	41	>95
184	United States of America	AMR	100	100	100	100	<5
185	Uruguay	AMR	98	93	95	85	<5
186	Uzbekistan	EUR	97	84	73	48	72
187	Vanuatu	WPR	85	52	78	42	79
188	Venezuela	AMR	85	70	71	48	5
189	Viet Nam	WPR	93	67	84	26	70
190	Yemen	EMR	74	68	76	14	42
191	Zambia	AFR	90	36	68	32	85
192	Zimbabwe	AFR	100	74	69	51	73

Region						
African Region	AFR	84	45	58	28	76
Region of the Americas	AMR	97	80	91	64	11
South-East Asia Region	SEAR	94	79	65	28	76
European Region	EUR	99	83	94	67	10
Eastern Mediterranean Region	EMR	92	75	86	39	38
Western Pacific Region	WPR	93	69	75	34	68

Figures computed by WHO to improve comparability where appropriate; they are not necessarily the official statistics of Member States, which may use alternative rigorous methods.

... Data not available or not applicable.

a) World Health Organization and United Nations Children's Fund. Joint Monitoring Programme for Water Supply and Sanitation. Online database. (<http://www.wssinfo.org/en/welcome.html>)

b) Global indoor air pollution database. (http://www.who.int/indoorair/health_impacts/databases_iap/en)

c) Global NCD InfoBase/Online Tool. World Health Organization. (http://www.who.int/ncd_surveillance/infobase/en)

d) Global Status Report on Alcohol. Geneva, World Health Organization, 2004.

e) Multiple Indicator Cluster Survey and Demographic and Health Surveys. (<http://www.measuredhs.com>) and (<http://childinfo.org>)



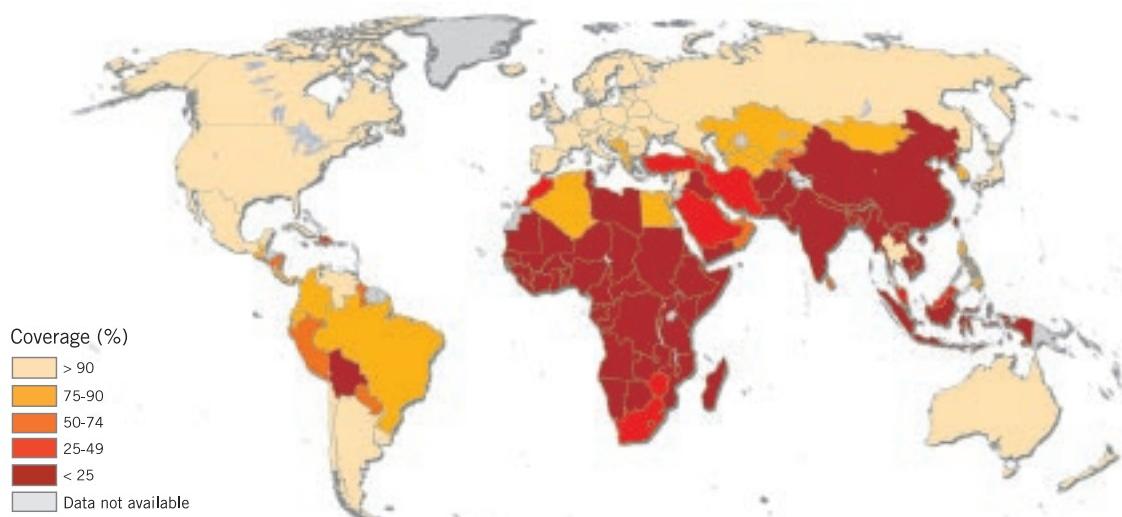
Tobacco use by adolescents (13–15) ^c				Per capita alcohol consumption (>15) ^d (in litres of pure alcohol)	Condom use by young people (15–24) who had high risk sex ^e			
(%)	year	(%)	year		(%)	year	(%)	year
Males		Females		Both sexes 2000–2001	Males		Females	
...	...	...	...	11.5	...	...	...	...
24	2002	15	2002	0.6	...	...	...	...
...	...	...	...	0.4	...	...	...	...
...	...	...	...	8.5	...	...	...	...
12	2002	8	2002	4.1	...	...	...	...
...
20	2002	10	2002	...	41	1998	22	1998
...
20	2000	12	2000	...	...	...	...	...
29	2001	7	2001	0.7	...	...	...	...
...	...	...	...	1.5	...	...	...	...
...	...	...	...	0.8	...	...	...	...
...
23	2002	16	2002	19.5	62	2001	44	2001
46	1999	35	1999	4.0	...	...	...	...
30	2002	13	2002	2.8	...	...	...	...
...	...	...	...	10.4	...	...	...	...
...	...	...	...	5.3	31	1999	21	1999
26	2000	20	2000	8.5	...	...	...	...
22	2001	26	2001	7.0	...	...	...	...
...	...	...	...	1.5	50	2002	...	...
...	...	...	...	1.1	...	...	...	...
15	2003	12	2003	8.8	...	...	...	...
10	2003	2	2003	1.4	...	...	...	...
21	2002	14	2002	0.1	...	...	...	...
25	2002	24	2002	3.0	40	2003	35	2003
19	2001	14	2001	5.1	69	1999	42	1999
22		15		4.6	...		...
24		20		6.5	...		...
30		17		1.1	...		...
...		...		0.2	...		...
20		11		9.0	...		...
14		6		4.6	...		...



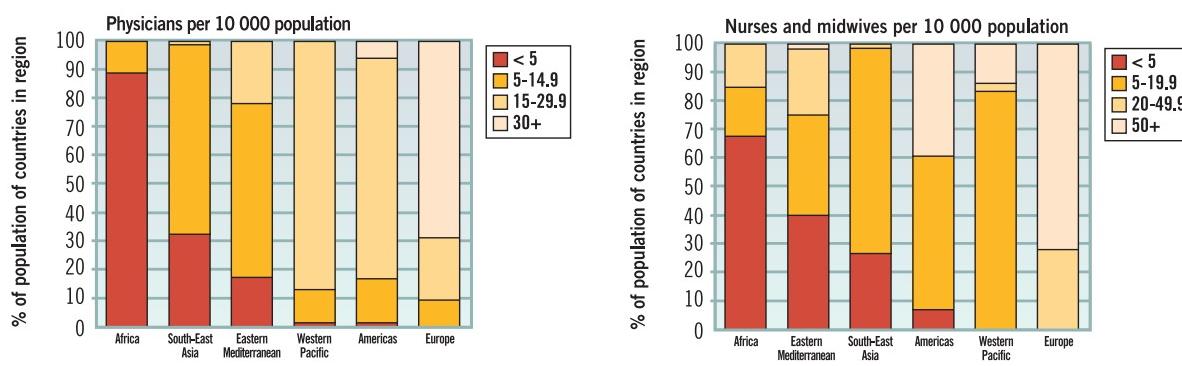


Health Systems Statistics

Coverage of vital registration of deaths, 1995-2003



Human resources for health, by WHO Region, 1995-2004





	Country	WHO region	Number of physicians ^a		Number of nurses and midwives ^a		Number of health workers ^a	
			(per 10 000)	year	(per 10 000)	year	(per 10 000)	year
1	Afghanistan	EMR	1.9	2001	2.2	2001	4.1	2001
2	Albania	EUR	13.3	2002	37.0	2003	50.3	2003
3	Algeria	AFR	8.5	1995	29.8	1995	38.2	1995
4	Andorra	EUR	35.0	2003	30.8	2003	65.8	2003
5	Angola	AFR	0.8	1997	11.9	1997	12.7	1997
6	Antigua and Barbuda	AMR	10.5	1999	33.2	1999	43.7	1999
7	Argentina	AMR	30.4	1998	5.9	1998	36.3	1998
8	Armenia	EUR	34.2	2003	45.9	2003	80.1	2003
9	Australia	WPR	24.7	2001	91.2	2002	115.9	2002
10	Austria	EUR	33.8	2003	62.2	2003	96.0	2003
11	Azerbaijan	EUR	36.1	2003	84.2	2003	120.3	2003
12	Bahamas	AMR	16.7	2002	23.8	2002	40.5	2002
13	Bahrain	EMR	18.5	2003	45.7	2003	64.2	2003
14	Bangladesh	SEAR	2.5	2001	2.4	2001	4.9	2001
15	Barbados	AMR	13.7	1999	51.2	1999	64.9	1999
16	Belarus	EUR	45.6	2003	121.8	2003	167.4	2003
17	Belgium	EUR	44.8	2002	113.9	1996	158.7	1996/02
18	Belize	AMR	10.2	2000	12.3	2000	22.5	2000
19	Benin	AFR	0.6	1995	2.8	1995	3.4	1995
20	Bhutan	SEAR	1.7	2001	2.3	1999	4.0	1999/01
21	Bolivia	AMR	7.6	2001	3.2	2001	10.8	2001
22	Bosnia and Herzegovina	EUR	14.6	2003	48.3	2003	62.9	2003
23	Botswana	AFR	2.9	1999	24.1	1999	27.0	1999
24	Brazil	AMR	20.6	2001	5.2	2001	25.8	2001
25	Brunei Darussalam	WPR	10.1	2000	60.7	2002	70.8	2000/02
26	Bulgaria	EUR	36.0	2003	42.3	2003	78.3	2003
27	Burkina Faso	AFR	0.4	2001	3.0	2001	3.4	2001
28	Burundi	AFR	0.5	2000	2.8	2000	3.4	2000
29	Cambodia	WPR	1.6	2000	8.5	2000	10.1	2000
30	Cameroon	AFR	0.7	1996	3.7	1996	4.5	1996
31	Canada	AMR	18.9	2002	73.5	2002	92.4	2002
32	Cape Verde	AFR	1.7	1996	5.6	1996	7.3	1996
33	Central African Republic	AFR	0.4	1995	1.4	1995	1.7	1995
34	Chad	AFR	0.3	2001	1.7	2001	2.0	2001
35	Chile	AMR	11.5	1998	6.6	2003	18.1	1998/03
36	China	WPR	16.4	2002	9.6	2003	26.0	2002/03
37	Colombia	AMR	12.7	2003	6.1	2003	18.8	2003
38	Comoros	AFR	0.7	1997	4.8	1997	5.6	1997
39	Congo	AFR	2.5	1995	21.0	1995	23.5	1995
40	Cook Islands	WPR	7.7	2001	38.0	2002	45.7	2001/02
41	Costa Rica	AMR	16.0	2000	3.2	2000	19.2	2000
42	Côte d'Ivoire	AFR	0.9	1996	4.6	1996	5.5	1996
43	Croatia	EUR	24.4	2003	53.7	2003	78.1	2003
44	Cuba	AMR	60.4	2003	71.4	2003	131.8	2003
45	Cyprus	EUR	26.3	2002	42.2	2002	68.5	2002
46	Czech Republic	EUR	35.2	2003	102.1	2003	137.3	2003
47	Democratic People's Republic of Korea	SEAR	32.0	2001	24.0	1995	56.0	1995/01
48	Democratic Republic of the Congo	AFR	0.7	1996	4.4	1996	5.1	1996
49	Denmark	EUR	29.1	2002	74.2	2002	103.3	2002
50	Djibouti	EMR	1.6	2002	8.0	2002	9.6	2002
51	Dominica	AMR	4.9	1999	41.6	1997	46.5	1997/99
52	Dominican Republic	AMR	19.0	1999	3.0	1999	22.0	1999
53	Ecuador	AMR	16.4	2001	6.1	2001	22.5	2001
54	Egypt	EMR	22.2	2003	26.5	2003	48.7	2003
55	El Salvador	AMR	12.6	2002	8.1	2002	20.7	2002



Nurses and midwives to physicians ^a		Hospital beds ^a		Total expenditure on health ^b (% of gross domestic product)	General government expenditure on health ^b (% of total government expenditure)	Per capita total expenditure on health ^b (international dollars)	Coverage of vital registration of deaths ^c	
(ratio)	year	(per 10 000)	year				(%)	year
				2002	2002	2002		
1.2	2001	4	2001	8.0	23.1	34	<25	2002
2.8	2003	31	2003	6.1	8.1	302	94	2003
3.5	1995	...	...	4.3	9.1	182	76	2000
0.9	2003	33	2003	6.5	26.6	1 908	46	2000
15.4	1997	...	...	5.0	4.1	92	<25	2002
3.2	1999	25	2003	4.8	14.1	527	>75	1995
0.2	1998	41	2000	8.9	15.3	956	100	2002
1.3	2003	44	2003	5.8	6.0	232	78	2003
3.7	2002	40	2001	9.5	17.1	2 699	100	2001
1.8	2003	83	2003	7.7	10.5	2 220	100	2003
2.3	2003	83	2003	3.7	2.9	120	72	2002
1.4	2002	34	2002	6.9	14.6	1 074	88	2000
2.5	2003	28	2003	4.4	9.5	792	90	2001
1.0	2001	3	1999	3.1	4.4	54	<25	2002
3.7	1999	21	2002	6.9	12.3	1 018	100	2000
2.7	2003	113	2003	6.4	10.5	583	98	2003
2.5	1996/02	70	2001	9.1	12.8	2 515	100	1997
1.2	2000	13	2003	5.2	5.3	300	100	2000
4.9	1995	...	...	4.7	11.1	44	<25	2002
1.4	1999/01	16	1999	4.5	12.0	76	<25	2002
0.4	2001	10	2003	7.0	11.6	179	<25	2002
3.3	2003	31	2003	9.2	8.8	322	88	1999
8.4	1999	...	...	6.0	7.5	387	22	1998
0.3	2001	27	2002	7.9	10.1	611	79	2000
6.0	2000/02	26	2000	3.5	4.7	653	100	2000
1.2	2003	63	2003	7.4	10.1	499	100	2003
7.5	2001	...	...	4.3	10.6	38	<25	2002
5.5	2000	...	...	3.0	2.0	16	<25	2002
5.5	2000	5	2001	12.0	18.6	192	<25	2002
5.0	1996	...	...	4.6	7.9	68	<25	2002
3.9	2002	44	2002	9.6	15.9	2 931	100	2001
3.3	1996	...	...	5.0	11.1	193	...	...
3.9	1995	...	...	3.9	7.4	50	<25	2002
6.7	2001	...	...	6.5	12.2	47	<25	2002
0.6	1998/03	26	2002	5.8	10.2	642	98	2002
0.6	2002/03	25	2002	5.8	10.0	261	8	2000
0.5	2003	11	2003	8.1	20.4	536	79	1999
6.5	1997	...	...	2.9	8.2	27	<25	2002
8.4	1995	...	...	2.2	6.0	25	<25	2002
5.0	2001/02	71	2001	4.6	11.6	697	>75	2001
0.2	2000	14	2003	9.3	24.4	743	79	2002
5.1	1996	...	...	6.2	7.2	107	<25	2002
2.2	2003	56	2003	7.3	12.0	630	99	2003
1.2	2003	49	2003	7.5	11.3	236	96	2002
1.6	2002	44	2002	7.0	6.8	883	83	2003
2.9	2003	86	2003	7.0	14.7	1 118	100	2003
0.8	1995/01	136	1995	4.6	5.0	57	<25	2002
6.4	1996	...	...	4.1	16.4	15	<25	2002
2.5	2002	41	2002	8.8	13.1	2 583	100	2000
5.0	2002	16	2000	6.3	10.1	78	<25	2002
8.5	1997/99	39	2002	6.4	12.2	310	>75	1999
0.2	1999	21	2003	6.1	11.7	295	49	1999
0.4	2001	15	2002	4.8	8.8	197	76	2000
1.2	2003	22	2003	4.9	6.0	192	80	2000
0.6	2002	7	2002	8.0	22.8	372	73	1999



	Country	WHO region	Number of physicians ^a		Number of nurses and midwives ^a		Number of health workers ^a	
			(per 10 000)	year	(per 10 000)	year	(per 10 000)	year
56	Equatorial Guinea	AFR	2.5	1996	4.2	1996	6.6	1996
57	Eritrea	AFR	0.3	1996	1.8	1996	2.1	1996
58	Estonia	EUR	31.4	2002	67.3	2002	98.7	2002
59	Ethiopia	AFR	0.3	2002	2.1	2002	2.3	2002
60	Fiji	WPR	4.5	2003	19.8	2003	24.3	2003
61	Finland	EUR	31.9	2003	221.9	2003	253.8	2003
62	France	EUR	33.5	2003	73.0	2003	106.5	2003
63	Gabon	AFR	2.9	1995	...	...	...	...
64	Gambia	AFR	0.4	1997	2.1	1997	2.4	1997
65	Georgia	EUR	48.4	2003	44.6	2003	93.0	2003
66	Germany	EUR	33.7	2003	100.5	2002	134.2	2002
67	Ghana	AFR	0.9	2002	8.4	2002	9.3	2002
68	Greece	EUR	45.3	2001	31.0	1995	76.4	1995/01
69	Grenada	AMR	8.1	1999	19.5	1999	27.6	1999
70	Guatemala	AMR	9.5	2003	3.6	2003	13.1	2003
71	Guinea	AFR	0.9	2000	4.7	2000	5.6	2000
72	Guinea-Bissau	AFR	1.7	1996	12.2	1996	13.9	1996
73	Guyana	AMR	2.6	1999	8.6	1999	11.2	1999
74	Haiti	AMR	2.5	1999	1.1	1999	3.6	1999
75	Honduras	AMR	8.7	1999	3.2	2000	11.9	1999/00
76	Hungary	EUR	32.5	2003	88.3	2003	120.7	2003
77	Iceland	EUR	36.2	2003	99.4	2003	135.7	2003
78	India	SEAR	5.9	2003	7.9	2003	13.8	2003
79	Indonesia	SEAR	1.1	1998	4.9	2000	6.0	1998/00
80	Iran (Islamic Republic of)	EMR	11.9	2001	16.1	2001	28.0	2001
81	Iraq	EMR	6.3	2003	12.1	2003	18.4	2003
82	Ireland	EUR	25.8	2003	185.2	2003	211.0	2003
83	Israel	EUR	36.7	2003	62.0	2003	98.7	2003
84	Italy	EUR	61.9	2002	44.6	1999	106.5	1999/02
85	Jamaica	AMR	8.5	2003	16.5	2003	25.0	2003
86	Japan	WPR	20.1	2000	86.3	2000	106.5	2000
87	Jordan	EMR	22.6	2003	29.5	2003	52.1	2003
88	Kazakhstan	EUR	36.6	2003	67.6	2003	104.2	2003
89	Kenya	AFR	1.3	1995	9.0	1995	10.3	1995
90	Kiribati	WPR	2.2	2004	30.1	2004	32.3	2004
91	Kuwait	EMR	16.0	2002	42.0	2002	58.0	2002
92	Kyrgyzstan	EUR	25.7	2003	68.3	2003	94.0	2003
93	Lao People's Democratic Republic	WPR	5.9	1996	10.3	1996	16.2	1996
94	Latvia	EUR	29.8	2003	54.3	2003	84.2	2003
95	Lebanon	EMR	28.1	2002	11.6	2002	39.7	2002
96	Lesotho	AFR	0.5	1995	10.7	1995	11.3	1995
97	Liberia	AFR	0.2	1997	1.0	1997	1.3	1997
98	Libyan Arab Jamahiriya	EMR	12.1	2002	50.0	2002	62.1	2002
99	Lithuania	EUR	39.6	2003	79.2	2003	118.8	2003
100	Luxembourg	EUR	26.8	2003	94.8	2003	121.6	2003
101	Madagascar	AFR	0.9	2001	2.8	2001	3.6	2001
102	Malawi	AFR	0.1	2003	2.6	2003	2.7	2003
103	Malaysia	WPR	7.0	2000	18.1	2002	25.1	2002
104	Maldives	SEAR	8.4	2000	12.3	2000	20.7	2000
105	Mali	AFR	0.4	2000	1.5	2000	1.9	2000
106	Malta	EUR	31.5	2003	60.8	2003	92.3	2003
107	Marshall Islands	WPR	4.7	2000	29.3	2000	34.0	2000
108	Mauritania	AFR	1.4	1995	7.3	1995	8.6	1995
109	Mauritius	AFR	8.5	1995	23.3	1995	31.8	1995
110	Mexico	AMR	17.1	2001	10.8	1999	27.9	1999/01



Nurses and midwives to physicians ^a		Hospital beds ^a		Total expenditure on health ^b (% of gross domestic product)	General government expenditure on health ^b (% of total government expenditure)	Per capita total expenditure on health ^b (international dollars)	Coverage of vital registration of deaths ^c	
(ratio)	year	(per 10 000)	year				(%)	year
				2002	2002	2002		
1.7	1996	...	...	1.8	9.8	139	<25	2002
6.1	1996	...	...	5.1	5.6	36	<25	2002
2.1	2002	60	2002	5.1	11.0	604	100	2002
7.2	2002	...	...	5.7	7.6	21	<25	2002
4.4	2003	26	1999	4.2	7.5	240	100	2000
7.0	2003	73	2003	7.3	11.0	1 943	100	2003
2.2	2003	78	2002	9.7	13.8	2 736	100	2000
...	...	...	...	4.3	6.3	248	<25	2002
5.9	1997	...	...	7.3	12.0	83	<25	2002
0.9	2003	42	2003	3.8	5.8	123	64	2001
3.0	2002	89	2002	10.9	17.6	2 817	100	2001
9.3	2002	...	...	5.6	8.4	73	<25	1999
0.7	1995/01	49	2000	9.5	10.8	1 814	90	2001
2.4	1999	57	2003	5.7	14.7	465	77	1996
0.4	2003	5	2002	4.8	16.6	199	86	1999
5.0	2000	...	...	5.8	4.8	105	<25	2002
7.4	1996	...	...	6.3	8.5	38	<25	2002
3.3	1999	29	2001	5.6	11.1	227	74	1996
0.4	1999	8	2000	7.6	23.8	83	7	1999
0.4	1999/00	10	2002	6.2	14.0	156	...	...
2.7	2003	78	2003	7.8	10.4	1 078	100	2003
2.7	2003	76	2002	9.9	18.1	2 802	91	2001
1.3	2003	9	2003	6.1	4.4	96	<25	2000
4.5	1998/00	60	1998	3.2	5.4	110	<25	2002
1.4	2001	16	2001	6.0	9.0	432	38	2001
1.9	2003	13	2003	1.5	0.7	44	<25	2002
7.2	2003	35	2003	7.3	16.4	2 367	98	2001
1.7	2003	61	2003	9.1	10.9	1 890	100	2000
0.7	1999/02	41	2003	8.5	13.3	2 166	98	2001
1.9	2003	14	2003	6.0	5.9	234	...	...
4.3	2000	147	2000	7.9	17.0	2 133	100	2002
1.3	2003	17	2003	9.3	12.5	418	...	...
1.8	2003	77	2003	3.5	8.9	261	79	2003
6.8	1995	...	...	4.9	8.4	70	<10	1999
13.7	2004	18	1998	8.0	10.2	141	>75	2002
2.6	2002	22	2002	3.8	5.6	552	90	2002
2.7	2003	53	2003	4.3	10.2	117	71	2003
1.7	1996	12	2002	2.9	8.7	49	<25	2002
1.8	2003	78	2003	5.1	9.3	477	100	2003
0.4	2002	30	2001	11.5	9.1	697	19	1999
19.8	1995	...	...	6.2	10.9	119	<25	2002
4.4	1997	...	...	2.1	5.5	11	<25	2002
4.1	2002	39	2002	3.3	5.0	222	<25	2002
2.0	2003	87	2003	5.9	14.0	549	100	2003
3.5	2003	68	2003	6.2	12.0	3 066	100	2003
3.2	2001	...	...	2.1	8.0	18	<25	2002
22.6	2003	...	...	9.8	9.7	48	<25	2002
2.6	2002	19	2001	3.8	6.9	349	40	1998
1.5	2000	17	2000	5.8	12.5	307	42	2003
3.4	2000	...	...	4.5	9.0	33	<25	2002
1.9	2003	48	2003	9.7	14.3	965	100	2003
6.2	2000	21	1999	10.6	10.9	415	53	1997
5.3	1995	...	...	3.9	10.1	54	<25	2002
2.7	1995	...	...	2.9	8.3	317	100	2002
0.6	1999/01	11	2002	6.1	16.6	550	96	2001



Country	WHO region	Number of physicians ^a		Number of nurses and midwives ^a		Number of health workers ^a		
		(per 10 000)	year	(per 10 000)	year	(per 10 000)	year	
111	Micronesia (Federated States of)	WPR	6.0	2000	22.9	2003	28.9	2000/03
112	Monaco	EUR	...	...	...	...	...	...
113	Mongolia	WPR	26.7	2002	34.2	2002	60.9	2002
114	Morocco	EMR	5.2	2002	9.0	2002	14.2	2002
115	Mozambique	AFR	0.2	2000	2.8	2000	3.1	2000
116	Myanmar	SEAR	3.0	2000	4.8	2000	7.8	2000
117	Namibia	AFR	3.0	1997	28.5	1997	31.4	1997
118	Nauru	WPR	5.0	2004	50.0	2004	55.0	2004
119	Nepal	SEAR	1.6	2002	2.6	2001	4.2	2001/02
120	Netherlands	EUR	31.5	2002	137.9	2003	169.4	2002/03
121	New Zealand	WPR	22.3	2001	90.3	2003	112.6	2001/03
122	Nicaragua	AMR	16.4	2003	1.4	1999	17.8	1999/03
123	Niger	AFR	0.3	2002	2.7	2002	3.1	2002
124	Nigeria	AFR	2.7	2000	...	...	...	...
125	Niue	WPR	18.2	2003	100.4	2003	118.6	2003
126	Norway	EUR	31.1	2003	152.3	2003	183.4	2003
127	Oman	EMR	13.9	2002	32.5	2002	46.4	2002
128	Pakistan	EMR	7.3	2003	4.7	2003	12.0	2003
129	Palau	WPR	10.9	1998	15.0	1998	25.9	1998
130	Panama	AMR	12.8	2001	10.8	2001	23.6	2001
131	Papua New Guinea	WPR	0.5	2000	5.5	2000	6.0	2000
132	Paraguay	AMR	5.6	2002	2.2	2002	7.8	2002
133	Peru	AMR	11.7	2000	8.0	2000	19.7	2000
134	Philippines	WPR	11.6	2002	61.4	2002	73.0	2002
135	Poland	EUR	23.0	2002	54.3	2003	77.3	2003
136	Portugal	EUR	32.6	2002	40.3	2003	72.9	2003
137	Qatar	EMR	23.5	2002	54.8	2002	78.3	2002
138	Republic of Korea	WPR	18.1	2000	40.1	2002	58.2	2002
139	Republic of Moldova	EUR	31.1	2003	74.3	2003	105.4	2003
140	Romania	EUR	19.6	2003	42.5	2003	62.1	2003
141	Russian Federation	EUR	42.5	2003	85.1	2003	127.6	2003
142	Rwanda	AFR	0.2	2002	2.1	2002	2.3	2002
143	Saint Kitts and Nevis	AMR	11.7	2002	49.8	1999	61.5	1999
144	Saint Lucia	AMR	5.8	1999	22.6	1999	28.4	1999
145	Saint Vincent and the Grenadines	AMR	6.9	2002	19.8	2002	26.7	2002
146	Samoa	WPR	2.4	2002	19.6	2002	22.0	2002
147	San Marino	EUR	...	...	...	...	...	...
148	Sao Tome and Principe	AFR	4.7	1996	15.7	1996	20.4	1996
149	Saudi Arabia	EMR	15.3	2001	32.3	2001	47.6	2001
150	Senegal	AFR	0.8	1995	2.9	1995	3.6	1995
151	Serbia and Montenegro	EUR	26.8	2002	63.8	2002	90.6	2002
152	Seychelles	AFR	13.2	1996	86.2	1996	99.5	1996
153	Sierra Leone	AFR	0.7	1996	3.8	1996	4.5	1996
154	Singapore	WPR	14.0	2001	44.5	2003	58.5	2003
155	Slovakia	EUR	31.8	2003	70.4	2003	102.2	2003
156	Slovenia	EUR	22.4	2002	71.8	2002	94.2	2002
157	Solomon Islands	WPR	1.3	2003	13.7	2003	15.0	2003
158	Somalia	EMR	0.4	1997	2.0	1997	2.4	1997
159	South Africa	AFR	6.9	2001	38.8	2001	45.7	2001
160	Spain	EUR	30.1	2002	36.7	2000	66.8	2000/02
161	Sri Lanka	SEAR	3.7	2002	7.9	2000	11.6	2000/02
162	Sudan	EMR	1.7	2002	8.0	2001	9.7	2001/02
163	Suriname	AMR	5.0	1999	16.2	2000	21.2	1999/00
164	Swaziland	AFR	1.8	2000	32.0	2000	33.8	2000
165	Sweden	EUR	32.6	2002	108.7	2002	141.3	2002



Nurses and midwives to physicians ^a		Hospital beds ^a		Total expenditure on health ^b (% of gross domestic product)	General government expenditure on health ^b (% of total government expenditure)	Per capita total expenditure on health ^b (international dollars)	Coverage of vital registration of deaths ^c	
(ratio)	year	(per 10 000)	year				(%)	year
3.8	2000/03	31	2000	6.5	8.8	311	<25	2002
...	...	196	1995	11.0	14.6	4 258	...	...
1.3	2002	...	2002	6.6	10.6	128	86	2003
1.7	2002	8	2002	4.6	4.9	186	34	1997
11.7	2000	...	...	5.8	19.9	50	<25	1997
1.6	2000	6	2000	2.2	2.3	30	<25	2000
9.6	1997	...	...	6.7	12.9	331	<25	2002
10.0	2004	...	...	7.6	9.2	1 334	50	1996
1.6	2001/02	2	1999	5.2	7.5	64	<25	2002
4.4	2002/03	46	2002	8.8	12.2	2 564	100	2003
4.1	2001/03	61	2002	8.5	15.5	1 857	99	2000
0.1	1999/03	9	2003	7.9	15.2	206	59	2002
8.1	2002	...	...	4.0	10.0	27	<25	2002
...	...	...	...	4.7	3.3	43	<25	2002
5.5	2003	130	1996	9.7	16.0	149	>75	2000
4.9	2003	44	2003	9.6	18.1	3 409	98	2002
2.3	2002	20	2002	3.4	7.3	379	71	2001
0.6	2003	7	2003	3.2	3.2	62	<25	2002
1.4	1998	50	1998	9.1	11.4	730	>75	1999
0.8	2001	25	2002	8.9	23.1	576	87	2002
10.6	2000	...	...	4.3	13.0	136	...	...
0.4	2002	12	2002	8.4	17.5	343	74	2000
0.7	2000	14	2003	4.4	12.4	226	51	2000
5.3	2002	10	2001	2.9	4.7	153	85	1998
2.4	2003	56	2002	6.1	9.8	657	100	2002
1.2	2003	36	2002	9.3	14.2	1 702	100	2002
2.3	2002	24	2002	3.1	6.8	894	83	2001
2.2	2002	61	2000	5.0	10.7	982	90	2002
2.4	2003	67	2003	7.0	12.9	151	83	2003
2.2	2003	66	2003	6.3	12.7	469	100	2002
2.0	2003	105	2003	6.2	9.5	535	97	2003
11.3	2002	...	...	5.5	13.4	48	<25	2002
4.3	1999	55	2003	5.5	9.7	667	>75	1997
3.9	1999	32	2002	5.0	11.5	306	100	2001
2.9	2002	45	2003	5.9	11.9	340	99	1999
8.1	2002	33	2000	6.2	13.9	238	28	2002
...	...	...	...	7.7	20.4	3 094	>75	2000
3.4	1996	...	...	11.1	14.5	108	...	...
2.1	2001	22	2001	4.3	11.6	534	31	2002
3.8	1995	...	...	5.1	11.2	62	<25	2002
2.4	2002	60	2002	8.1	10.7	305	90	2002
6.5	1996	...	...	5.2	6.6	557	>75	2000
5.2	1996	...	...	2.9	6.8	27	<25	2002
3.2	2003	29	2001	4.3	5.9	1 105	82	2002
2.2	2003	73	2003	5.9	10.3	723	100	2002
3.2	2002	50	2003	8.3	14.7	1 547	100	2003
11.0	2003	19	2003	4.8	11.8	83	28	1999
5.0	1997	4	1997	...	...	...	<25	2002
5.6	2001	...	...	8.7	10.7	689	47	1996
1.2	2000/02	36	2001	7.6	13.6	1 640	100	2001
2.1	2000/02	22	1999	3.7	6.0	131	74	1996
4.7	2001/02	7	2002	4.9	6.3	58	<25	2002
3.2	1999/00	36	2001	8.6	10.3	385	...	...
18.2	2000	...	...	6.0	10.9	309	<25	2002
3.3	2002	52	1997	9.2	13.5	2 512	100	2001



	Country	WHO region	Number of physicians ^a		Number of nurses and midwives ^a		Number of health workers ^a	
			(per 10 000)	year	(per 10 000)	year	(per 10 000)	year
166	Switzerland	EUR	36.2	2002	85.8	2000	122.0	2000
167	Syrian Arab Republic	EMR	14.3	2003	18.8	2003	33.1	2003
168	Tajikistan	EUR	19.3	2003	49.2	2003	68.6	2003
169	Thailand	SEAR	3.0	1999	16.2	1999	19.2	1999
170	The former Yugoslav Republic of Macedonia	EUR	21.9	2001	59.0	2001	80.9	2001
171	Timor-Leste	SEAR	0.6	2002	11.5	2002	12.1	2002
172	Togo	AFR	0.6	2001	2.4	2001	3.0	2001
173	Tonga	WPR	3.4	2001	34.4	2002	37.8	2001/02
174	Trinidad and Tobago	AMR	7.5	1999	28.7	1999	36.2	1999
175	Tunisia	EMR	8.1	2002	30.2	2002	38.3	2002
176	Turkey	EUR	13.7	2002	30.4	2002	44.0	2002
177	Turkmenistan	EUR	30.0	1997	70.3	2003	100.3	1997/03
178	Tuvalu	WPR	5.7	2002	41.8	2003	47.6	2002/03
179	Uganda	AFR	0.5	2002	0.9	2002	1.4	2002
180	Ukraine	EUR	30.1	2003	82.8	2003	112.8	2003
181	United Arab Emirates	EMR	16.9	2002	35.2	2002	52.1	2002
182	United Kingdom	EUR	21.3	2001	54.0	2003	75.2	2001/03
183	United Republic of Tanzania	AFR	0.2	2002	3.7	2002	3.9	2002
184	United States of America	AMR	27.9	1999	97.2	1999	125.1	1999
185	Uruguay	AMR	39.0	2003	8.7	2003	47.7	2003
186	Uzbekistan	EUR	28.0	2003	108.5	2003	136.5	2003
187	Vanuatu	WPR	1.4	2004	16.8	2004	18.2	2004
188	Venezuela	AMR	20.0	2001	7.9	1999	27.9	1999/01
189	Viet Nam	WPR	5.7	2002	7.7	2002	13.4	2002
190	Yemen	EMR	2.2	2001	4.5	2001	6.7	2001
191	Zambia	AFR	0.7	1995	11.3	1995	12.0	1995
192	Zimbabwe	AFR	0.6	2002	5.4	2002	6.0	2002

Region				
African Region	AFR	1.8	8.8	10.6
Region of the Americas	AMR	21.8	40.8	62.6
South-East Asia Region	SEAR	5.0	7.4	12.4
European Region	EUR	33.1	72.0	105.1
Eastern Mediterranean Region	EMR	10.1	13.7	23.8
Western Pacific Region	WPR	15.8	19.7	35.5

Figures computed by WHO to improve comparability where appropriate; they are not necessarily the official statistics of Member States, which may use alternative rigorous methods.

... Data not available or not applicable.

a) Global Health Atlas of infectious diseases. World Health Organization. Data updated with recent information from Regional Office websites and publications.

b) The World Health Report 2005: make every mother and child count. Geneva, World Health Organization, 2005. (<http://www.who.int/whr/2005/en/index.html>)

c) Mortality database. World Health Organization. (<http://www3.who.int/whosis/menu.cfm?path=whosis,search,mort&language=english>)



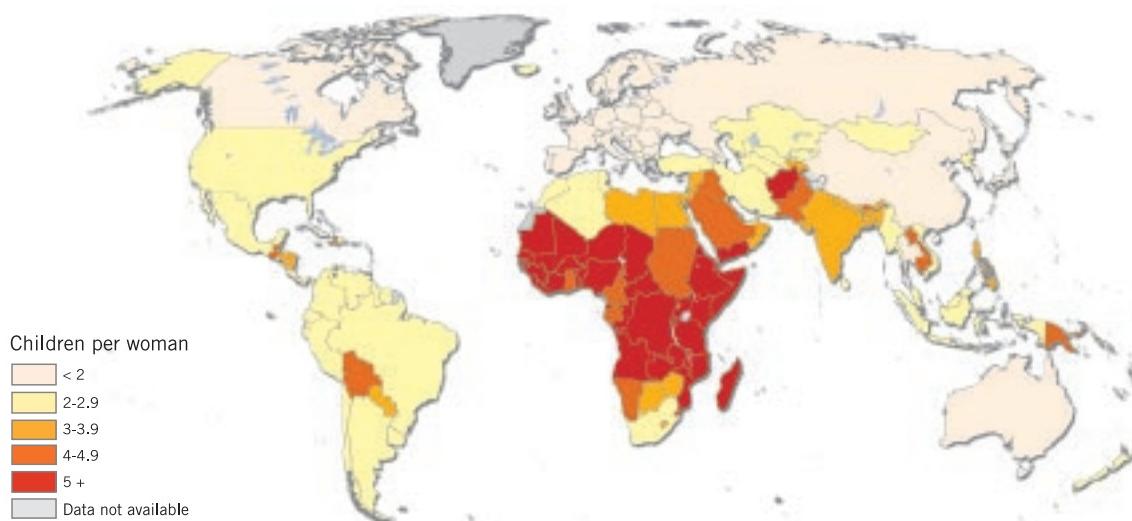
Nurses and midwives to physicians ^a		Hospital beds ^a		Total expenditure on health ^b (% of gross domestic product)	General government expenditure on health ^b (% of total government expenditure)	Per capita total expenditure on health ^b (international dollars)	Coverage of vital registration of deaths ^c	
(ratio)	year	(per 10 000)	year				(%)	year
				2002	2002	2002		
2.4	2000	60	2002	11.2	18.7	3 446	100	2001
1.3	2003	15	2003	5.1	6.5	109	100	2000
2.6	2003	61	2003	3.3	5.7	47	50	2001
5.4	1999	22	1999	4.4	17.1	321	91	2002
2.7	2001	49	2002	6.8	14.0	341	90	2003
18.1	2002	...	...	9.7	9.0	195	<25	2002
4.3	2001	...	...	10.5	7.8	163	<10	2001
10.0	2001/02	32	2001	6.9	15.8	292	<75	1998
3.8	1999	34	2001	3.7	5.7	428	92	1998
3.7	2002	17	2002	5.8	7.5	415	6	1999
2.2	2002	26	2003	6.5	10.3	420	43	1998
2.3	1997/03	71	1997	4.3	12.1	182	76	1998
7.3	2002/03	56	2001	4.4	1.5	77	>75	2000
1.9	2002	...	...	7.4	9.1	77	<25	2002
2.8	2003	88	2003	4.7	9.4	210	99	2003
2.1	2002	22	2002	3.1	7.3	750	65	2000
2.5	2001/03	42	1997	7.7	15.8	2 160	100	2002
16.2	2002	...	...	4.9	14.9	31	<25	2002
3.5	1999	34	2002	14.6	23.1	5 274	100	2001
0.2	2003	19	2003	10.0	7.9	805	100	2000
3.9	2003	55	2003	5.5	6.8	143	80	2002
12.4	2004	31	2001	3.8	12.8	121	12	2000
0.4	1999/01	8	2001	4.9	8.0	272	97	2000
1.4	2002	24	2001	5.2	6.1	148	<25	2002
2.1	2001	6	2001	3.7	3.5	58	<25	2002
16.4	1995	...	...	5.8	11.3	51	17	2000
9.4	2002	...	...	8.5	12.2	152	36	2001
4.9	...			5.4	9.0	101	...	
1.9	26			9.7	16.8	2 221	...	
1.5	17			5.2	5.1	101	...	
2.2	67			7.4	12.0	1 331	...	
1.4	13			4.5	6.4	187	...	
1.2	34			5.8	10.2	443	...	



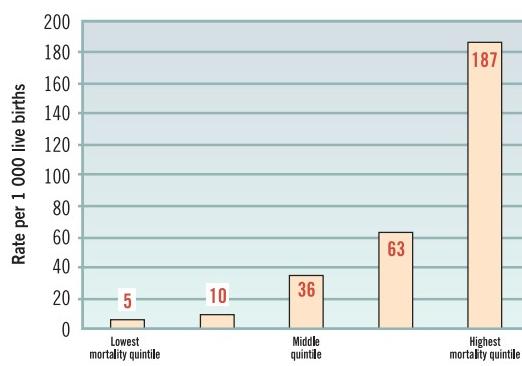


Demographic and Socioeconomic Statistics

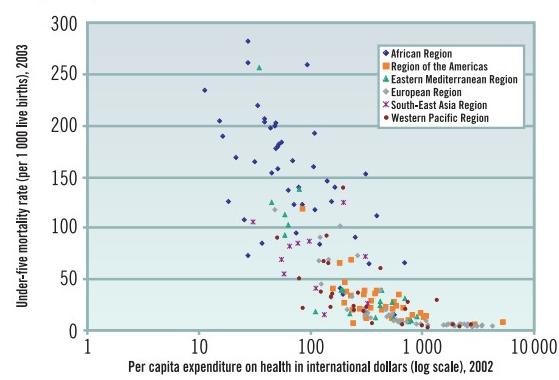
Total fertility rate, 2000-2004



Mean under-five mortality rate for each quintile of 192 countries ranked by under-five mortality levels, 2003



Under-five mortality rate by per capita total expenditure on health, countries by WHO Region, 2002–2003





Country	WHO region	Population ^a				Adult literacy rate ^b (%)	Net primary school enrolment ratio ^b (%)		Gross national income per capita ^c (current US\$)	Population living below poverty line ^d (% with <1 \$ a day)
		number (000)	annual growth rate (%)	in urban areas (%)	total fertility rate (per woman)		Boys 2001	Girls 2001		
		2005	1995–2004	2005	2000–2004	2005	2001	2001	2003	1990–2002
1	Afghanistan	EMR	29 863	3.3	24	7.5	...	...	...	...
2	Albania	EUR	3 130	-0.1	45	2.3	98.7	...	1 740	<2
3	Algeria	AFR	32 854	1.4	60	2.5	68.9	96.3	93.7	1 890
4	Andorra	EUR	67	0.4	91	...	...	...	...	...
5	Angola	AFR	15 941	2.4	37	6.8	66.9	...	740	...
6	Antigua and Barbuda	AMR	81	1.5	38	...	...	...	9 160	...
7	Argentina	AMR	38 747	1.0	91	2.4	97.0	...	3 650	3.3
8	Armenia	EUR	3 016	-0.6	64	1.3	99.4	84.9	84.2	950
9	Australia	WPR	20 155	1.1	93	1.7	...	95.5	96.4	21 650
10	Austria	EUR	8 189	0.2	66	1.4	...	89.2	90.6	26 720
11	Azerbaijan	EUR	8 411	0.7	50	1.9	98.8	80.5	79.1	810
12	Bahamas	AMR	323	1.3	90	2.3	...	85.2	87.6	...
13	Bahrain	EMR	727	2.1	90	2.5	86.5	90.7	91.3	...
14	Bangladesh	SEAR	141 822	1.8	25	3.2	41.1	85.7	87.5	400
15	Barbados	AMR	270	0.3	53	1.5	99.7	99.6	100	9 270
16	Belarus	EUR	9 755	-0.4	72	1.2	99.7	...	1 590	<2
17	Belgium	EUR	10 419	0.3	97	1.7	...	100	100	25 820
18	Belize	AMR	270	2.1	49	3.2	76.9	...	...	...
19	Benin	AFR	8 439	2.8	46	5.9	39.8	...	440	...
20	Bhutan	SEAR	2 163	2.0	9	4.4	...	...	660	...
21	Bolivia	AMR	9 182	1.9	64	4.0	86.7	94.0	94.4	890
22	Bosnia and Herzegovina	EUR	3 907	1.3	45	1.3	94.6	...	1 540	...
23	Botswana	AFR	1 765	0.9	53	3.2	78.9	79.2	82.7	3 430
24	Brazil	AMR	186 405	1.3	84	2.3	88.2	95.7	97.4	2 710
25	Brunei Darussalam	WPR	374	2.2	78	2.5	93.9	...	...	...
26	Bulgaria	EUR	7 726	-0.6	71	1.2	98.6	91.0	89.7	2 130
27	Burkina Faso	AFR	13 228	2.7	19	6.7	12.8	41.0	28.9	300
28	Burundi	AFR	7 548	1.7	11	6.8	58.9	58.8	48.0	100
29	Cambodia	WPR	14 071	2.0	20	4.1	69.4	89.0	83.2	310
30	Cameroon	AFR	16 322	1.9	53	4.6	67.9	...	640	17.1
31	Canada	AMR	32 268	0.9	81	1.5	...	...	23 930	...
32	Cape Verde	AFR	507	2.1	58	3.8	75.7	100	98.9	1 490
33	Central African Republic	AFR	4 038	1.6	44	5.0	48.6	...	260	66.6
34	Chad	AFR	9 749	3.0	26	6.7	25.5	69.7	46.8	250
35	Chile	AMR	16 295	1.1	88	2.0	95.7	...	4 390	<2
36	China	WPR	1 315 844	0.7	41	1.7	90.9	94.3	95.0	1 100
37	Colombia	AMR	45 600	1.5	77	2.6	92.1	87.1	86.3	1 810
38	Comoros	AFR	798	2.5	36	4.9	56.2	...	450	...
39	Congo	AFR	3 999	2.9	54	6.3	82.8	...	640	...
40	Cook Islands	WPR	18	-1.0	73	...	...	...	...	...
41	Costa Rica	AMR	4 327	2.0	62	2.3	95.8	89.9	91.3	4 280
42	Côte d'Ivoire	AFR	18 154	1.9	46	5.1	48.1	72.0	53.1	660
43	Croatia	EUR	4 551	-0.3	60	1.3	98.1	89.2	87.8	5 350
44	Cuba	AMR	11 269	0.3	76	1.6	96.9	96.2	95.2	...
45	Cyprus	EUR	835	1.2	70	1.6	96.8	95.8	96.1	...
46	Czech Republic	EUR	10 220	-0.1	75	1.2	...	88.5	88.4	6 740
47	Democratic People's Republic of Korea	SEAR	22 488	0.7	62	2.0	...	...	...	...
48	Democratic Republic of the Congo	AFR	57 549	2.2	33	6.7	65.3	...	100	...
49	Denmark	EUR	5 431	0.4	86	1.8	...	100	100	33 750
50	Djibouti	EMR	793	2.5	85	5.1	...	38.3	29.6	910
51	Dominica	AMR	79	0.5	73	...	...	...	3 360	...
52	Dominican Republic	AMR	8 895	1.3	60	2.7	87.7	99.1	95.1	2 070
53	Ecuador	AMR	13 228	1.4	63	2.8	91.0	99.0	100	1 790
54	Egypt	EMR	74 033	1.7	42	3.3	55.6	92.2	88.3	1 390
55	El Salvador	AMR	6 881	1.8	60	2.9	79.7	89.0	88.9	2 200



Country	WHO region	Population ^a				Adult literacy rate ^b (%)	Net primary school enrolment ratio ^b (%)		Gross national income per capita ^c (current US\$)	Population living below poverty line ^d (% with <1 \$ a day)
		number (000)	annual growth rate (%)	in urban areas (%)	total fertility rate (per woman)		Boys 2001	Girls 2001		
		2005	1995–2004	2005	2000–2004	2005	2001	2001	2003	1990–2002
56	Equatorial Guinea	AFR	504	2.1	50	5.9	...	91.4	77.8	...
57	Eritrea	AFR	4 401	3.2	21	5.5	...	45.8	39.2	190
58	Estonia	EUR	1 330	-0.8	70	1.4	99.8	96.4	95.2	4 960 <2
59	Ethiopia	AFR	77 431	2.3	16	5.9	41.5	51.5	40.8	90 26.3
60	Fiji	WPR	848	0.9	53	2.9	92.9	99.6	100	2 360
61	Finland	EUR	5 249	0.2	61	1.7	...	99.9	100	27 020
62	France	EUR	60 496	0.3	77	1.9	...	99.6	99.7	24 770
63	Gabon	AFR	1 384	2.0	85	4.0	...	...	3 580	...
64	Gambia	AFR	1 517	2.9	26	4.7	...	76.0	69.7	310 59.3
65	Georgia	EUR	4 474	-1.1	52	1.5	...	90.9	90.5	830 2.7
66	Germany	EUR	82 689	0.1	89	1.3	...	...	...	25 250
67	Ghana	AFR	22 113	2.0	46	4.4	54.1	61.4	59.0	320 44.8
68	Greece	EUR	11 120	0.4	61	1.3	...	96.9	96.7	13 720
69	Grenada	AMR	103	0.3	42	...	...	...	...	3 790
70	Guatemala	AMR	12 599	2.1	47	4.6	69.9	86.9	82.9	1 910 16.0
71	Guinea	AFR	9 402	2.0	37	5.9	...	69.1	53.7	430
72	Guinea-Bissau	AFR	1 586	2.6	36	7.1	...	...	...	140
73	Guyana	AMR	751	0.2	39	2.3	...	...	...	900 <2
74	Haiti	AMR	8 528	1.3	39	4.0	51.9	...	...	380
75	Honduras	AMR	7 205	2.3	46	3.7	80.0	86.7	88.3	970 23.8
76	Hungary	EUR	10 098	-0.2	66	1.3	99.3	91.4	90.1	6 330 <2
77	Iceland	EUR	295	0.9	93	2.0	...	99.8	99.6	30 810
78	India	SEAR	1 103 371	1.5	29	3.1	61.3	89.4	75.7	530 34.7
79	Indonesia	SEAR	222 781	1.2	48	2.4	87.9	92.6	91.7	810 7.5
80	Iran (Islamic Republic of)	EMR	69 515	1.0	68	2.1	...	...	...	2 000 <2
81	Iraq	EMR	28 807	2.6	67	4.8	...	...	...	...
82	Ireland	EUR	4 148	1.2	60	1.9	...	94.7	96.3	26 960
83	Israel	EUR	6 725	2.1	92	2.9	95.3	99.8	100	...
84	Italy	EUR	58 093	0.1	68	1.3	...	99.4	99.0	21 560
85	Jamaica	AMR	2 651	0.6	52	2.4	87.6	95.1	95.3	2 760 <2
86	Japan	WPR	128 085	0.2	66	1.3	...	100	100	34 510
87	Jordan	EMR	5 703	2.6	79	3.5	90.9	90.9	91.7	1 850 <2
88	Kazakhstan	EUR	14 825	-0.7	56	2.0	99.5	90.0	89.0	1 780 <2
89	Kenya	AFR	34 256	2.1	42	5.0	84.3	69.4	70.5	390 23.0
90	Kiribati	WPR	99	1.9	50	...	...	...	...	880
91	Kuwait	EMR	2 687	4.4	96	2.4	82.9	85.0	84.3	...
92	Kyrgyzstan	EUR	5 264	1.3	34	2.7	...	91.7	88.4	330 <2
93	Lao People's Democratic Republic	WPR	5 924	2.1	22	4.8	68.7	86.1	79.4	320 26.3
94	Latvia	EUR	2 307	-0.7	66	1.3	99.7	87.3	87.9	4 070 <2
95	Lebanon	EMR	3 577	1.1	88	2.3	...	90.1	89.4	4 040
96	Lesotho	AFR	1 795	0.6	18	3.6	81.4	81.2	87.6	590 36.4
97	Liberia	AFR	3 283	4.2	48	6.8	55.9	...	...	130
98	Libyan Arab Jamahiriya	EMR	5 853	1.8	87	3.0	81.7	...	...	...
99	Lithuania	EUR	3 431	-0.5	67	1.3	99.6	94.7	93.9	4 490 <2
100	Luxembourg	EUR	465	1.3	92	1.7	...	96.2	96.2	43 940
101	Madagascar	AFR	18 606	2.7	27	5.4	70.6	68.2	68.9	290 49.1
102	Malawi	AFR	12 884	2.2	17	6.1	64.1	81.0	81.0	170 41.7
103	Malaysia	WPR	25 347	2.0	65	2.9	88.7	95.1	95.3	3 780 <2
104	Maldives	SEAR	329	2.5	30	4.3	97.2	96.0	96.5	2 300
105	Mali	AFR	13 518	2.6	34	6.9	19.0	...	...	290 72.8
106	Malta	EUR	402	0.6	92	1.5	92.6	96.6	96.7	...
107	Marshall Islands	WPR	62	1.6	67	...	...	...	...	2 710
108	Mauritania	AFR	3 069	2.6	64	5.8	41.2	68.2	65.2	430 25.9
109	Mauritius	AFR	1 245	0.9	44	2.0	84.3	93.2	93.2	4 090
110	Mexico	AMR	107 029	1.3	76	2.4	90.5	98.8	100	6 230 9.9



Country	WHO region	Population ^a				Adult literacy rate ^b (%)	Net primary school enrolment ratio ^b (%)		Gross national income per capita ^c (current US\$)	Population living below poverty line ^d (% with <1 \$ a day)
		number (000)	annual growth rate (%)	in urban areas (%)	total fertility rate (per woman)		Boys 2001	Girls 2001		
		2005	1995–2004	2005	2000–2004	2005	2001	2001	2003	1990–2002
111	Micronesia (Federated States of)	WPR	110	0.2	30	4.4	...	...	2 090	...
112	Monaco	EUR	35	1.0	100	...	...	...	...	...
113	Mongolia	WPR	2 646	0.9	57	2.4	97.8	85.4	87.9	480
114	Morocco	EMR	31 478	1.4	59	2.8	50.7	91.5	85.1	1 320
115	Mozambique	AFR	19 792	2.1	38	5.5	46.5	63.4	55.9	210
116	Myanmar	SEAR	50 519	1.2	31	2.5	89.7	81.8	82.0	...
117	Namibia	AFR	2 031	2.0	34	4.0	83.3	75.8	80.7	1 870
118	Nauru	WPR	14	2.2	100	...	...	...	...	...
119	Nepal	SEAR	27 133	2.1	16	3.7	48.6	...	...	240
120	Netherlands	EUR	16 299	0.5	67	1.7	...	100	98.8	26 310
121	New Zealand	WPR	4 028	0.9	86	2.0	...	98.8	98.0	15 870
122	Nicaragua	AMR	5 487	1.8	58	3.3	76.7	81.6	82.2	730
123	Niger	AFR	13 957	3.1	23	7.9	19.9	40.7	27.5	200
124	Nigeria	AFR	131 530	2.2	48	5.8	66.8	...	...	320
125	Niue	WPR	1	-2.0	37	...	...	...	...	...
126	Norway	EUR	4 620	0.5	81	1.8	...	99.8	100	43 350
127	Oman	EMR	2 567	1.5	79	3.8	74.4	74.1	74.9	...
128	Pakistan	EMR	157 935	2.1	35	4.3	41.5	...	...	470
129	Palau	WPR	20	1.3	68	...	...	...	7 500	...
130	Panama	AMR	3 232	1.7	58	2.7	91.9	99.2	98.8	4 250
131	Papua New Guinea	WPR	5 887	2.1	13	4.1	...	76.8	68.9	510
132	Paraguay	AMR	6 158	2.2	59	3.9	91.6	91.3	91.8	1 100
133	Peru	AMR	27 968	1.5	75	2.9	85.0	99.8	100	2 150
134	Philippines	WPR	83 054	1.8	63	3.2	92.6	91.9	94.1	1 080
135	Poland	EUR	38 530	-0.0	62	1.3	...	97.9	98.1	5 270
136	Portugal	EUR	10 495	0.4	56	1.5	...	99.6	100	12 130
137	Qatar	EMR	813	4.0	92	3.0	84.2	95.3	93.6	...
138	Republic of Korea	WPR	47 817	0.6	81	1.2	...	100	99.7	12 020
139	Republic of Moldova	EUR	4 206	-0.3	46	1.2	96.2	78.7	77.8	590
140	Romania	EUR	21 711	-0.4	55	1.3	97.3	88.8	88.0	2 310
141	Russian Federation	EUR	143 202	-0.3	73	1.3	99.6	...	...	2 610
142	Rwanda	AFR	9 038	5.0	22	5.7	64.0	82.8	85.1	220
143	Saint Kitts and Nevis	AMR	43	0.5	32	...	...	...	...	6 880
144	Saint Lucia	AMR	161	0.8	31	2.2	...	100	98.3	4 050
145	Saint Vincent and the Grenadines	AMR	119	0.5	61	2.3	...	92.3	91.6	3 300
146	Samoa	WPR	185	0.9	23	4.4	98.7	95.6	94.2	1 600
147	San Marino	EUR	28	0.8	89	...	...	...	...	...
148	Sao Tome and Principe	AFR	157	1.8	38	4.1	...	100	94.2	320
149	Saudi Arabia	EMR	24 573	2.5	89	4.1	77.9	61.1	56.5	...
150	Senegal	AFR	11 658	2.2	51	5.1	41.0	61.2	54.5	550
151	Serbia and Montenegro	EUR	10 503	-0.0	52	1.7	...	...	...	1 910
152	Seychelles	AFR	81	0.6	50	...	91.9	...	...	7 480
153	Sierra Leone	AFR	5 525	2.6	40	6.5	29.6	...	...	150
154	Singapore	WPR	4 326	2.1	100	1.4	92.5	...	...	21 230
155	Slovakia	EUR	5 401	0.1	58	1.2	99.7	86.2	87.8	4 920
156	Slovenia	EUR	1 967	0.0	51	1.2	99.7	93.4	92.8	11 830
157	Solomon Islands	WPR	478	2.5	17	4.3	...	...	...	600
158	Somalia	EMR	8 228	2.4	36	6.4	...	...	...	...
159	South Africa	AFR	47 432	1.2	58	2.8	82.4	89.2	89.8	2 780
160	Spain	EUR	43 064	0.7	77	1.3	...	100	99.4	16 990
161	Sri Lanka	SEAR	20 743	0.9	21	2.0	92.1	...	...	930
162	Sudan	EMR	36 233	1.9	41	4.4	59.0	...	...	460
163	Suriname	AMR	449	0.7	77	2.6	...	96.7	98.1	...
164	Swaziland	AFR	1 032	0.8	24	4.0	79.2	76.3	77.0	1 350
165	Sweden	EUR	9 041	0.2	83	1.6	...	100	99.6	28 840



Country	WHO region	Population ^a				Adult literacy rate ^b (%)	Net primary school enrolment ratio ^b (%)		Gross national income per capita ^c (current US\$)	Population living below poverty line ^d (% with <1 \$ a day)	
		number (000)	annual growth rate (%)	in urban areas (%)	total fertility rate (per woman)		Boys 2001	Girls 2001			
		2005	1995–2004	2005	2000–2004	2005	2001	2001	2003	1990–2002	
166	Switzerland	EUR	7 252	0.3	68	1.4	...	99.2	98.5	39 880	...
167	Syrian Arab Republic	EMR	19 043	2.3	50	3.5	82.9	100	94.9	1 160	...
168	Tajikistan	EUR	6 507	1.1	24	3.8	99.5	...	...	190	10.3
169	Thailand	SEAR	64 233	0.9	33	1.9	92.6	87.5	85.1	2 190	<2
170	The former Yugoslav Republic of Macedonia	EUR	2 034	0.3	60	1.5	...	92.0	92.6	1 980	<2
171	Timor-Leste	SEAR	947	0.5	8	7.8	...	...	...	430	...
172	Togo	AFR	6 145	2.9	36	5.4	53.0	100	83.6	310	...
173	Tonga	WPR	102	0.5	34	3.5	98.8	100	99.4	1 490	...
174	Trinidad and Tobago	AMR	1 305	0.3	76	1.6	98.5	86.3	87.3	7 260	12.4
175	Tunisia	EMR	10 102	1.1	64	2.0	73.2	97.1	96.6	2 240	<2
176	Turkey	EUR	73 193	1.4	67	2.5	86.5	91.0	84.8	2 790	<2
177	Turkmenistan	EUR	4 833	1.3	46	2.8	98.8	...	...	1 120	12.1
178	Tuvalu	WPR	10	0.6	57	...	...	...	...	...	...
179	Uganda	AFR	28 816	2.9	12	7.1	68.9	...	...	240	...
180	Ukraine	EUR	46 481	-0.9	67	1.1	99.6	87.6	87.3	970	2.9
181	United Arab Emirates	EMR	4 496	5.8	86	2.5	77.3	81.9	79.7	...	...
182	United Kingdom	EUR	59 668	0.3	89	1.7	...	100	99.9	28 350	...
183	United Republic of Tanzania	AFR	38 329	2.0	38	5.0	77.1	54.3	54.5	290	19.9
184	United States of America	AMR	298 213	0.9	81	2.0	...	92.2	93.3	37 610	...
185	Uruguay	AMR	3 463	0.7	93	2.3	97.7	89.3	89.8	3 790	<2
186	Uzbekistan	EUR	26 593	1.4	36	2.7	99.3	...	...	420	21.8
187	Vanuatu	WPR	211	1.9	24	4.2	...	92.4	94.0	1 180	...
188	Venezuela	AMR	26 749	1.8	88	2.7	93.0	92.0	92.7	3 490	15.0
189	Viet Nam	WPR	84 238	1.3	27	2.3	90.3	...	...	480	17.7
190	Yemen	EMR	20 975	2.9	26	6.2	49.0	...	...	520	15.7
191	Zambia	AFR	11 668	1.8	37	5.7	...	66.4	65.6	380	63.7
192	Zimbabwe	AFR	13 010	0.9	36	3.6	90.0	82.4	83.1	...	36.0
Region											
African Region	AFR	738 086	2.2	38	5.4	60.9	66.7	61.3	560	39	
Region of the Americas	AMR	886 333	1.2	79	2.4	89.0	94.0	94.9	15 850	<10	
South-East Asia Region	SEAR	1 656 529	1.4	31	2.9	65.5	89.1	79.4	630	29	
European Region	EUR	882 731	0.2	70	1.6	96.9	94.7	93.2	12 450	<5	
Eastern Mediterranean Region	EMR	538 001	2.0	49	3.8	54.3	87.6	83.5	1 070	8	
Western Pacific Region	WPR	1 743 954	0.8	45	1.8	90.7	94.3	94.9	4 200	16	

... Data not available or not applicable.

a) World Population Prospects: The 2004 Revision. Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. (<http://esa.un.org/unpp>)

b) United Nations Educational, Scientific and Cultural Organization. (http://www.uis.unesco.org/TEMPLATE/html/Exceltables/education/Literacy_National_July04.xls)

c) DWI Data Query System. The World Bank Group. (<http://devdata.worldbank.org/data-query>)

d) The World Bank Group. (<http://www.worldbank.org/data/wdi2004/pdfs/table2-5.pdf>)



Part 2

WORLD HEALTH INDICATORS

1. Health Status Indicators



► Life expectancy at birth

Rationale for use	Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups – children and adolescents, adults and the elderly.
Definition	Average number of years that a newborn is expected to live if current mortality rates continue to apply
Associated terms	A life table presents a set of tabulations that describe the probability of dying, the death rate and the number of survivors for each age or age group. Accordingly, life expectancy at birth is an output of a life table.
Data sources	Vital registration, census and surveys: Age-specific mortality rates required to compute life expectancy at birth.
Methods of estimation	<p>WHO has developed a model life table based on about 1800 life tables from vital registration judged to be of good quality.</p> <p>For countries with vital registration, the level of completeness of recorded mortality data in the population is assessed and mortality rates are adjusted accordingly. Where vital registration data for 2003 are available, these are used directly to construct the life table. For countries where the information system provides a time series of annual life tables, parameters from the life table are projected using a weighted regression model, giving more weight to recent years. Projected values of the two life table parameters are then applied to the modified logit life table model (see references), where the most recent national data provide an age pattern, to predict the full life table for 2003.</p> <p>In case of inadequate sources of age-specific mortality rates, the life table is derived from estimated under-5 mortality rates and adult mortality rates that are applied to a global standard (defined as the average of all the 1800 life tables) using a modified logit model.</p>
Disaggregation	By age and sex.
References	<p>Murray CJL, et al. Modified logit life table system: principles, empirical validation and application. <i>Population Studies</i> 2003, 57(2):1-18.</p> <p><i>The World Health Report 2005: make every mother and child count</i>. Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/en/index.html)</p>
Database	WHO Mortality Database (vital registration data): (http://www3.who.int/whosis)
Comments	The lack of complete and reliable mortality data, especially for low income countries and particularly on mortality among adults and the elderly, necessitates the application of modelling (based on data from other populations) to estimate life expectancy.



► Healthy life expectancy (HALE)

Rationale for use	Substantial resources are devoted to reducing the incidence, duration and severity of major diseases that cause morbidity but not mortality and to reducing their impact on people's lives. It is important to capture both fatal and non-fatal health outcomes in a summary measure of average levels of population health. Healthy life expectancy (HALE) at birth adds up expectation of life for different health states, adjusted for severity distribution making it sensitive to changes over time or differences between countries in the severity distribution of health states.
Definition	Average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury.
Associated terms	None.
Data sources	Death registration data reported annually to WHO: Mortality data for calculation of life tables. For countries without such data, available survey and census sources of information on child and adult mortality are analysed and used to estimate life tables. WHO Global Burden of Disease (GBD) study, WHO Multi-Country Survey Study (MCSS) and World Health Survey (WHS): Estimation of prevalence data. The GBD study draws on a wide range of data sources to develop internally consistent estimates for the incidence, prevalence, duration and years lived with disability for 135 major causes. The World Health Survey, carried out by WHO in more than 70 countries, uses anchoring vignettes to maximize comparability of self-report capacities for a set of core health domains. It also includes a health state valuation module for assessing the severity of reported health states.
Methods of estimation	Since comparable data on health state prevalence are not available for all countries, a four-stage strategy is used: <ol style="list-style-type: none"> 1. Data from the WHOGBD study are used to estimate severity-adjusted prevalence by age and sex for all countries. 2. Data from the WHOMCSS and WHS are used to make independent estimates of severity-adjusted prevalence by age and sex for survey countries. 3. Prevalence for all countries is calculated based on GBD, MCSS and WHS estimates. 4. Life tables constructed by WHO are used with Sullivan's method to compute HALE for countries.
Disaggregation	By age and sex.
References	<i>World Health Report 2004: Changing History.</i> Geneva, World Health Organization, 2004. Mathers CD, et al. Methods for Measuring Healthy Life Expectancy. In: Murray CJL, Evans D, eds. <i>Health systems performance assessment: debates, methods and empiricism.</i> Geneva, World Health Organization, 2003.
Database	WHOSIS BOD WebPages: (http://www.who.int/evidence/bod)
Comments	The first challenge is the lack of reliable data on mortality and morbidity, especially from low income countries. Other issues include lack of comparability of self-reported data from health interviews and the measurement of health-state preferences for such self-reporting.



► Probability of dying (per 1 000) between ages 15 and 60 years (adult mortality rate)

Rationale for use	Adult mortality is an important indicator of Burden of Disease (BOD) during the most economically productive age span.
Definition	Probability that a 15 year old will die before reaching his/her 60th birthday.
Associated terms	The probability of dying between the ages of 15 and 60 years (per 1 000 population) per year among a hypothetical cohort of 100 000 people that would experience the age-specific mortality rate of the reporting year. Life table (see <i>Life expectancy at birth</i>).
Data sources	Vital or sample registration: Mortality by age and sex are used to calculate age specific rates. Census: Mortality by age and sex tabulated from questions on recent deaths that occurred in the household during a given period preceding the census (usually 12 months). Census or surveys: Indirect methods provide adult mortality rates based on information on survival of parents or siblings.
Methods of estimation	Empirical data from different sources are consolidated to obtain estimates of the level and trend in adult mortality by fitting a curve to the observed mortality points. However, to obtain the best possible estimates, judgement needs to be made on data quality and how representative it is of the population. Recent statistics based on data availability in most countries are point estimates dated by at least 3-4 years which need to be projected forward in order to obtain estimates of adult mortality for the current year. When no adequate source of age-specific mortality exists, the life table is derived as described in the life expectancy indicator.
Disaggregation	By sex, location (urban/rural, major regions/provinces) and socio-economic characteristics (e.g. education, wealth quintile). Censuses and surveys provide such detail; vital registration data usually does not include socio-economic variables but can provide the other disaggregations.
References	<i>Methods for estimating adult mortality</i> . United Nations Population Division, July 2002 (ESA/P/WP.175). (http://www.un.org/esa/population/publications/adultmort/Complete.pdf)
Database	WHO Mortality Database (vital registration data): (http://www3.who.int/whosis)
Comments	There is a dearth of data on adult mortality, notably in low income countries. Methods to estimate adult mortality from censuses and surveys are retrospective and possibly subject to considerable measurement error.



► Probability of dying (per 1 000) under age five years (under-5 mortality rate)

Rationale for use	Under-5 mortality rate is a leading indicator of the level of child health and overall development in countries. It is also an MDG indicator.
Definition	Probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period.
Associated terms	<p>Under-5 mortality rate, is strictly speaking, not a rate (i.e. the number of deaths divided by the number of population at risk during a certain period of time) but a probability of death derived from a life table and expressed as rate per 1 000 live births.</p> <p>Live birth refers to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life - e.g. beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles - whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.</p>
Data sources	<p>Age-specific mortality rates among children and infants are calculated from birth and death data derived from vital registration, census, and/or household surveys:</p> <p>Vital registration: Number of deaths by age and numbers of births and children in each age group are used to calculate age specific rates. This systems provides annual data.</p> <p>Census and surveys: An indirect method is used based on questions to each woman of reproductive age as to how many children she has ever born and how many are still alive. The Brass method and model life tables are then used to obtain an estimate of under-5 mortality.</p> <p>Surveys: A direct method is used based on birth history - a series of detailed questions on each child a woman has given birth to during her lifetime. To reduce sampling errors, the estimates are generally presented as period rates, for five or 10 years preceding the survey.</p>
Methods of estimation	Empirical data from different sources are consolidated to obtain estimates of the level and trend in under-5 mortality by fitting a curve to the observed mortality points. However, to obtain the best possible estimates, judgement needs to be made on data quality and how representative it is of the population. Recent statistics based on data availability in most countries are point estimates dated by at least 3-4 years which need to be projected forward in order to obtain estimates of under-5 mortality for the current year.
Disaggregation	By sex, location (urban/rural, major regions/provinces) and socio-economic characteristics (e.g. mother's education, wealth quintile). Often disaggregated under-5 mortality rates are presented for 10-year periods because of the rapid increase in sampling error if multiple categories are used. Censuses and surveys provide such detail; vital registration data usually does not include socio-economic variables but can provide the other disaggregations.
References	<p>Hill K, et al. <i>Trends in child mortality in the developing world: 1990 to 1996</i>, unpublished report, United Nations Childrens' Fund (UNICEF), New York, January 1998 (http://www.childinfo.org/cmr/kh98meth.html)</p> <p><i>The World Health Report 2005, Make every mother and child count</i>. Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/en/index.html)</p> <p><i>The State of the World's Children 2005 – Childhood under threat</i>. New York, United Nations Childrens' Fund (UNICEF), 2004. (http://www.unicef.org/sowc05/english/index.html)</p>
Database	<p>Demographic and Health Surveys (DHS): (http://www.measuredhs.com/)</p> <p>WHOSIS Mortality Database (Vital registration data): (http://www3.who.int/whosis)</p> <p>UNICEF (statistics and MICS): www.childinfo.org/</p>
Comments	Even though many countries have collected information on child mortality in recent years, the high demand for very recent child mortality trend information is difficult to meet through household surveys. High quality of vital registration systems (completeness of registration) and high quality of survey or census data collection are crucial - WHO does estimate the level of underestimation of vital registration systems and there clearly is substantial variation in data quality and consistency across countries.



► Neonatal mortality rate (per 1 000 live births)

Rationale for use	Neonatal deaths account for a large proportion of child deaths. Mortality during neonatal period is considered a good indicator of both maternal and newborn health and care.
Definition	Number of deaths during the first 28 completed days* of life per 1 000 live births in a given year or period. * Neonatal deaths may be subdivided into early neonatal deaths, occurring during the first seven days of life, and late neonatal deaths, occurring after the seventh day but before the 28 completed days of life.
Associated terms	The neonatal period commences at birth and ends 28 completed days after birth. Live birth (see <i>Probability of dying under age 5 years</i>).
Data sources	Vital registration: The number of live births and number of neonatal deaths are used to calculate age specific rates. Surveys: Calculations are based on birth history - a series of detailed questions on each child a woman has given birth to during her lifetime. The estimates are generally presented as period rates for the five-year periods preceding the survey. The total number of births in the survey provides the denominator.
Methods of estimation	Empirical data are used. When no survey or registration data point is available, the neonatal mortality rate is estimated from the under-5 mortality using a regression adjusted for AIDS.
Disaggregation	By sex, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. mother's education level, wealth quintile).
References	World Health Organization. WHO Statistical Information System (WHOSIS). <i>Estimated completeness of mortality data for latest year</i> . (http://www3.who.int/whosis) <i>Perinatal and neonatal mortality</i> . In preparation. Geneva. World Health Organization. 2005.
Database	Demographic and Health Surveys (DHS): (http://www.measuredhs.com) <i>The World Health Report 2005: make every mother and child count</i> . Annex Table 8. Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/en/index.html) WHO, European Office. HFA database: (http://www.who.dk/hfadb)
Comments	The reliability of the neonatal mortality estimates depends on accuracy and completeness of reporting and recording of births and deaths. Underreporting and misclassification are common, especially for deaths occurring early on in life. Perinatal mortality, defined as number of stillbirths and deaths in the first week of life per 1 000 live births, is a useful additional indicator, and work is ongoing to improve estimates of stillbirth rates, a major component of perinatal mortality.



► Maternal mortality ratio (per 100 000 live births)

Rationale for use	Complications during pregnancy and childbirth are a leading cause of death and disability among women of reproductive age in developing countries. The maternal mortality ratio represents the risk associated with each pregnancy, i.e. the obstetric risk. It is also a MDG indicator.
Definition	Number of maternal deaths per 100 000 live births during a specified time period, usually one year.
Associated terms	Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. To facilitate the identification of maternal deaths in circumstances in which cause of death attribution is inadequate, ICD 10 introduced an additional category: Pregnancy-related death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death. Live birth (see <i>Probability of dying under age 5 years</i>).
Data sources	Vital registration, household surveys, census, health service records.
Methods of estimation	Measuring maternal mortality accurately is difficult except where comprehensive registration of deaths and of causes of death exists. Elsewhere, censuses or surveys can be used to measure levels of maternal mortality. Data derived from health services records are problematic where not all births take place in health facilities because of biases whose dimensions and direction cannot be determined. Reproductive-age mortality studies (RAMOS) use triangulation of different sources of data on deaths of women of reproductive age coupled with record review and/or verbal autopsy to accurately identify maternal deaths. Based on multiple sources of information, RAMOS are considered the best way to estimate levels of maternal mortality. Estimates derived from household surveys are subject to wide confidence intervals and long period rates (often for 10 year periods). For countries without any reliable data on maternal mortality, statistical models are applied. Global and regional estimates of maternal mortality are developed every five years, using a regression model.
Disaggregation	By age and parity, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. education level, wealth quintile).
References	<i>International Classification of Diseases</i> , 10th Revision, Geneva, World Health Organization, 2004. <i>Maternal Mortality Estimates developed by WHO, UNICEF and UNFPA</i> . Geneva, World Health Organization, 2004.
Database	None.
Comments	Maternal death is, from an epidemiological perspective, a relatively rare event and mortality is difficult to measure accurately. Many low-income countries have no or very little data and modelling is used to obtain a national estimate.



► HIV prevalence among the population aged 15-49 years

Rationale for use	HIV and AIDS has become a major public health problem in almost every country and monitoring the course of the epidemic is crucial. Both the MDGs and the United Nations General Assembly Special Session (UNGASS) on HIV and AIDS have set goals of reducing HIV prevalence.
Definition	Percent of people with HIV infection among all people aged 15-49 years.
Associated terms	For surveillance purposes, HIV infection is diagnosed through the HIV antibody test, according to, as a minimum, the WHO/UNAIDS surveillance guidelines.
Data sources	HIV surveillance: in generalized epidemics, antenatal clinic attendees as primary sources of information. In concentrated and low level epidemics (where estimated HIV prevalence in the general population is below 1%), surveillance among risk populations, e.g. injecting drug users, men who have sex with men and sex workers, should be the focus of surveillance. Household surveys: Inclusion of HIV testing is being increasingly adopted by countries e.g. Demographic and Health Surveys (DHS).
Methods of estimation	HIV prevalence data from surveillance systems, which may include national surveys with HIV testing, are used to estimate HIV prevalence using standardized methods of estimation developed by UNAIDS and WHO in collaboration with the UNAIDS Reference Group on Estimation, Modelling and Projections. For generalized epidemics, a software package called Epidemic Projection Package (EPP) is used to fit a curve to empirical data points. For concentrated and low level epidemics a spreadsheet method is used that requires inputs on estimated size and HIV prevalence in risk populations.
Disaggregation	By sex, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. education level, wealth quintile).
References	<p><i>Sexually Transmitted Infections, Special Issue, British Medical Journal</i>, 2004. (http://www.sti.bmjjournals.com/content/vol80/suppl_1)</p> <p>The UNAIDS Reference Group on Estimates, Modelling and Projections. Improved methods and assumptions for estimation of the HIV/AIDS epidemic and its impact: Recommendations of the UNAIDS Reference Group on Estimates, Modelling and Projections. <i>AIDS</i> 2002; 16:W1–W16.</p> <p>Guidelines for using HIV Testing Technologies in Surveillance: Selection, evaluation and Implementation. Geneva. World Health Organization, Joint United Nations Programme , 2001. (http://www.who.int/hiv/pub/epidemiology/pub4/en)</p>
Database	<p>US Bureau of the Census HIV/AIDS Surveillance database: (http://www.census.gov/ipc/www/hivaidsn.html)</p> <p>UNAIDS/WHO Global HIV/AIDS Online Database: (http://www.who.int/GlobalAtlas/autoLogin/hiv_login.asp)</p>
Comments	The main indicator proposed for monitoring progress towards achieving the international goals is HIV prevalence among young people aged 15-24 years which is a better proxy for monitoring HIV incidence than prevalence among ages 15-49 years. Although countries are moving towards collecting better data on young people, mainly by capturing data on young pregnant women attending antenatal clinics, comparable data availability is still limited.



► Number of poliomyelitis cases

Rationale for use	The 1988 World Health Assembly (WHA) called for the global eradication of poliomyelitis. The number of poliomyelitis cases is used to monitor progress towards this goal and to inform eradication strategies. Countries implement strategies supplementing routine immunization - e.g. national immunization days and sub-national campaigns - or more targeted mop-up activities, depending on the levels of poliomyelitis cases.
Definition	Suspected polio cases (acute-flaccid paralysis - AFP, other paralytic diseases, and contacts with polio cases) that are confirmed by laboratory examination or are consistent with polio infection.
Associated terms	None.
Data sources	<p>Active case finding and reporting of AFP, communicable disease surveillance systems, national and regional laboratory reports*.</p> <p>* Most countries conduct active case search for cases of acute flaccid paralysis among children less than 15 years of age. When possible (approximately 80% of cases) a stool specimen is obtained for laboratory investigation. A regional reference laboratory verifies cases with evidence of polio infection. The principle indicator for the quality of AFP/polio surveillance data is the use of the non-polio AFP rate. Studies have shown that the expected non-polio AFP rate is approximately 1 per 100 000 population under 15 years of age and an effective polio surveillance system should detect and report approximately one AFP case per 100 000 population under 15.</p>
Methods of estimation	Estimates of polio cases are based exclusively on unadjusted surveillance data.
Disaggregation	By location (urban/rural, major regions/provinces).
References	<p>Information on Vaccines, Immunization and Biologicals: http://www.who.int/vaccines-surveillance/diseasedesc/DES_polio.htm and http://www.who.int/vaccines-surveillance/diseasedesc/RSS_polio.htm</p>
Database	<p>Information on Vaccines, Immunization and Biologicals: http://www.who.int/vaccines/casecount/case_count.cfm</p> <p>WHO Vaccines preventable diseases monitoring system: http://www.who.int/vaccines/globalsummary/immunization/countryprofileselect.cfm</p>
Comments	Many countries have eliminated indigenous polio and in some instances more than ten years have passed since the last reported case of polio. Intensive, high quality surveillance is difficult to maintain when effective interventions have eliminated the disease locally.



► Incidence of smear positive tuberculosis per 100 000 population

Rationale for use	The incidence of tuberculosis is an important measure to monitor the progression of the disease at country level and around the world. The indicator is also formulated in Target 8 of the Millennium Development Goals (MDGs) that is to “have halted by 2015 and begun to reverse the incidence of malaria and other major diseases (including TB)”. TB incidence, together with TB prevalence and deaths are measuring the impact of the DOTS strategy. Impact measures complement what DOTS implementation indicators (case detection and treatment success) provide in term of programme outcomes.
Definition	Estimated number of smear positive new TB cases (including HIV sero-positive) per 100 000 population per year.
Associated terms	None.
Data sources	Estimates of incidence are derived from notifications to WHO (coupled with assumptions about the proportion of incident cases which is notified); from disease prevalence surveys (coupled with assumptions about the duration of disease); or from surveys of the prevalence of infection in children, used to calculate the annual risk of TB infection (ARTI) (coupled with assumptions about the relationship between ARTI and the incidence of disease). Estimates of incidence, prevalence and deaths are based on a consultative and analytical process in WHO and are published annually in the global TB report.
Methods of estimation	To estimate the incidence of all TB cases, ‘first, a reference year is selected for which a best estimate of incidence is available; this may be the year in which a survey was carried out or the year in which incidence was first estimated using one the following methods: 1. incidence = case notifications / proportion of cases detected 2. incidence = prevalence / duration of condition 3. incidence = annual risk of infection x Styblo coefficient 4. incidence = deaths / proportion of incident cases that die Then the series of case notification are used to determine how incidence changed before and after that reference year. The time series of estimated incidence rates is constructed from the notification series in two ways: if the rate of change of incidence is roughly constant through time, the exponential trends is fit to the notifications; if the rate of change varies (eastern Europe, central Europe and high-HIV Africa), a three-year moving average of the notification rates is used. If the notifications for any country are considered to be an unreliable guide to trend (e.g. because reporting effort is known to have changed), the aggregated trend for all other countries with reliable data from the same epidemiological region is applied.
Disaggregation	None
References	<p>Corbett EL et al. The growing burden of tuberculosis: global trends and interactions with the HIV epidemic. <i>Archives of Internal Medicine</i>, 2003, 163:1009– 1021.</p> <p>Dye C et al. Global burden of tuberculosis: estimated incidence, prevalence and mortality by country. <i>Journal of the American Medical Association</i>, 1999, 282: 677–686.</p> <p><i>Global Tuberculosis Control 2005 WHO Report</i>. WHO, STB, Geneva. 2005.</p> <p><i>Global Tuberculosis Control 2005 WHO Report</i>. Geneva, World Health Organization, 2005.</p>
Database	Global Tuberculosis Database: http://www.who.int/GlobalAtlas/DataQuery/browse.asp?catID=011600000000&lev=3 WHO Tuberculosis Programme: www.who.int/tb
Comments	Direct measures of incidence are expensive and time consuming and can only be done from time to time in some countries. On the other hand, disease surveys measure prevalence and not incidence, although surveys may provide some valuable information about the duration of infectiousness which can be used to estimate the incidence. The tuberculin surveys are feasible where annual risk of infection is high and BCG coverage is low which may not be applicable in many countries. A reliable vital registration system is in place only in small number of countries and needs to be improved in most countries with high TB burden. Finally, the routine surveillance system is the tool for evaluating TB epidemiology and control which needs to be improved in many countries.



► Newborns with low birth weight (%)

Rationale for use	The low birth weight rate in a population is a good indicator of a public health problem that includes long-term maternal malnutrition, ill health and poor health care. On an individual basis, low birth weight is an important predictor of newborn health and survival.
Definition	Percentage of live born infants with birth weight less than 2,500 g* in a given time period. * Low birth weight may be subdivided into very low birth weight (less than 1500 g) and extremely low birth weight (less than 1 000 g).
Associated terms	Birth weight is the first weight of the foetus or newborn obtained after birth. For live births, birth weight should ideally be measured within the first hour of life before significant postnatal weight loss has occurred and actual weight should be recorded to the degree of accuracy to which it is measured. Low birth weight is defined as less than 2500 g (up to and including 2499 g). Live birth (see <i>Probability of dying under age 5 years</i>).
Data sources	Health services statistics: Proportion of live births with low birth weight among births in health institutions. Household Surveys: Demographic and Health Surveys (DHS) include questions on birth weight as well as the mothers' subjective assessment of the infant's size at birth (i.e. very large, larger than average, average, smaller than average, very small), for births in the last 3-5 years.
Methods of estimation	"Percentage of low birth weight" births from routine service statistics provides the rate. Survey indicators are analysed to apply a consistent methodology for adjusting numerical birth weight data for underreporting and heaping at 2500g. To estimate the low birth weight rate, a weighting procedure is used in which the proportion low birth weight in each category of size is multiplied by the total proportion of births in the corresponding category and summed to obtain overall estimates of the low birth weight incidence. When numerical birth weight is available for more than 95% of births, no adjustment is made. For those countries where it is not possible to obtain the original data files, published estimates are adjusted using methods to suit the nature of the published figures.
Disaggregation	By location (urban/rural, major regions/provinces) and socio-economic characteristics (e.g. mother's education level, wealth quintile).
References	United Nations Children's Fund and World Health Organization, Low Birthweight: Country, regional and global estimates. UNICEF, New York, 2004. (http://www.who.int/reproductive-health/publications/low_birthweight/low_birthweight_estimates.pdf) Blanc A, Wardlaw T. Monitoring low birth weight: an evaluation of international estimates and an updated estimation procedure. <i>Bulletin of the World Health Organization</i> , 2005, 83(3):178-185.
Database	Demographic and Health Surveys (DHS): (http://www.measuredhs.com) WHO, European Office. HFA database: (http://www.who.dk/hfadb)
Comments	The large proportion of infants not weighed at birth constitutes a significant impediment to accurate monitoring of low birth weight.



Children under five years of age

- stunted for age (%)
- underweight for age (%)

Rationale for use	Both indicators measure growth in young children. Child growth is internationally recognized as an important public health indicator for monitoring nutritional status and health in populations. In addition, children who suffer from growth retardation as a result of poor diets and/or recurrent infections tend to have greater risks of illness and death.
Definition	<p>“Percentage of children stunted” is the percentage of children under five years who have a height-for-age below minus two standard deviations of the National Center for Health Statistics (NCHS)/WHO reference median.</p> <p>“Percentage of children underweight” is the percentage of children under five years who have a weight-for-age below minus two standard deviations of the NCHS/ WHO reference median.</p>
Associated terms	Severely underweight or stunting is defined as below minus three standard deviations from median weight-for-age or height-for-age of NCHS/WHO reference population.
Data sources	National household surveys, sub-national nutritional surveys and national nutrition surveillance systems.
Methods of estimation	Empirical values are used. Several countries have limited data for recent years and current estimations are made using models that make projections based on past trends.
Disaggregation	By sex, age, and location (urban/rural, major regions/provinces)
References	de Onis M, Blössner M. The World Health Organization Global Database on Child Growth and Malnutrition: methodology and applications. <i>International Journal of Epidemiology</i> 2003; 32:518-26.
Database	WHO Global Database on Child Growth and Malnutrition: (http://www.who.int/nutgrowthdb)
Comments	Anthropometric values are compared across individuals or populations in relation to a set of reference values. The choice of the reference population has a significant impact on the proportion of children identified as being under-nourished and/or over-nourished. Since the late 1970s, WHO has recommended the NCHS/WHO international reference population, for the comparison of child growth data. An improved international growth reference for young children is expected to be available by the end of 2005.



► Prevalence of adults (15 years and older) who are obese (%)

Rationale for use	The prevalence of overweight and obesity in adults has been increasing globally. Obese adults ($BMI \geq 30.0$) are at increased risk of adverse metabolic outcomes including increased blood pressure, cholesterol, triglycerides, and insulin resistance. Subsequently, an increase in BMI exponentially increases the risk of noncommunicable diseases (NCDs) like coronary heart disease, ischaemic stroke and type-2 diabetes mellitus. Raised BMI is also associated with an increased risk of cancer.
Definition	Percentage of adults classified as obese ($BMI \geq 30.0 \text{ kg/m}^2$) among total adult population (15 years and older).
Associated terms	Adult overweight ($BMI \geq 25.0 \text{ kg/m}^2$) Pre-obese ($BMI 25.00\text{-}29.99 \text{ kg/m}^2$) Obesity ($BMI \geq 30.00 \text{ kg/m}^2$)
Data sources	Nationally representative household surveys, including Demographic and Health Survey (DHS).
Methods of estimation	Estimates are still under development and will be published later in 2005. Only national representative surveys with either anthropometric data collection or self-reported weight and height (mostly in high income countries) are included in the 2005 World Health Statistics.
Disaggregation	By sex, age, location (urban/rural, major regions/provinces)
References	<i>Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee.</i> Geneva, World Health Organization, 1995. (WHO Technical Report Series 854). . <i>Obesity: preventing and managing the global epidemic. Report of a WHO Consultation.</i> Geneva, World Health Organization, 2000. (WHO Technical Report Series 894). World Health Organization. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. <i>The Lancet</i> , 2004; 363: 157-163.
Database	Demographic and Health Surveys (DHS): (http://www.measuredhs.com) WHO Global Database on Body Mass Index (BMI): (http://www.who.int/bmi)
Comments	The household surveys focus on different age ranges and sometimes on select samples (such as women of reproductive ages who a child under five years of age), which affects comparability. Also, self-reported height and weight information is likely to have more problems than measured adult BMI. The existing data are under review and estimation methods developed. It is expected that a new set of data and metadata and eventually estimates will replace the currently available information.



► Mean systolic blood pressure among population aged 15 years and older

Rationale for use	High blood pressure is an important, preventable cause of premature death from heart diseases and stroke. Even though clinical guidelines define high blood pressure as systolic blood pressure $\geq 140\text{mmHg}$ or diastolic blood pressure $\geq 90\text{mmHg}$, the risk of chronic diseases increases continuously even below this recommended criteria. Therefore, to measure the population level of risk, "mean systolic blood pressure" with standard deviation(s) is used to provide the distribution of this risk factor in the population.
Definition	Mean blood pressure of population (age-adjusted to WHO Standard population, age 15 years and older) expressed in mmHg (millimetres of mercury which is a unit of pressure).
Associated terms	None.
Data sources	National and sub-national health examination surveys, research publications.
Methods of estimation	Estimates are made for 113 countries using existing country level data held in WHO Global Info-Base (see database). Adjustments (definitions, year, standard age group, and age-adjustment) are made to make data comparable between countries.
Disaggregation	By sex and age.
References	None.
Database	WHO Global InfoBase: (http://www.who.int/ncd_surveillance/infobase/web/InfoBaseOnline/en/index.aspx)
Comments	Efforts are being made to make systolic blood pressure estimates comparable. However, a number of countries, particularly in Africa, do not have published data in Global Info-base and for these countries it is not possible to estimate this indicator.



Part 2

WORLD HEALTH INDICATORS

2. Health Services Coverage Indicators



One-year-olds immunized with

- one dose of measles (%)
- three doses of diphtheria, tetanus toxoid and pertussis (DTP3) (%)
- three doses of Hepatitis B (HepB3) (%)

Health services coverage indicators

Rationale for use	Immunization coverage estimates are used to monitor immunization services, to guide disease eradication and elimination efforts, and are a good indicator of health system performance.
Definition	<p>Measles immunization coverage is the percentage of one-year-olds who have received at least one dose of measles containing vaccine in a given year. For countries recommending the first dose of measles among children older than 12 months of age, the indicator is calculated as the proportion of children less than 24 months of age receiving one dose of measles containing vaccine.</p> <p>DTP3 immunization coverage is the percentage of one-year-olds who have received three doses of, the combined diphtheria and tetanus toxoid and pertussis vaccine in a given year.</p> <p>HepB3 immunization coverage is the percentage of one-year-olds who have received three doses of Hepatitis B3 vaccine in a given year.</p>
Associated terms	None.
Data sources	<p>Administrative data: Reports of vaccinations performed by service providers are used for estimates based on administrative data service providers (e.g. district health centres, vaccination teams, physicians). The estimate of immunization coverage is derived by dividing the total number of vaccinations given by the number of children in the target population, often based on census projections.</p> <p>Household surveys: Survey items correspond to children's history in coverage surveys. The principle types of surveys are the Expanded Programme on Immunization (EPI) 30-cluster survey, the UNICEF Multiple Indicator Cluster Survey (MICS), and the Demographic and Health Survey (DHS).</p>
Methods of estimation	WHO and UNICEF rely on reports from countries, household surveys and other sources such as research studies. Both organizations have developed common review process and estimation methodologies. Draft estimates are made, reviewed by country and external experts and then finalized.
Disaggregation	By sex, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. mother's education level, wealth quintile).
References	<p>'Recommended Standards for Surveillance of Selected Vaccine-Preventable disease. Geneva, World Health Organization, 1999. (WHO/EPI/GEN/99012): (http://www.who.int/health_topics/measles) and (http://www.who.int/vaccines-surveillance)</p> <p><i>State of the World's Children</i>. United Nations Children's Fund (UNICEF), 2003: (http://www.childinfo.org/eddb/immuni/index.htm) and (http://www.unicef.org/programme/health/focus/immunization/measles.htm)</p>
Database	<p>Information on Vaccines, Immunization and Biologicals: (http://www.who.int/vaccines-surveillance)</p> <p>Estimates on Immunization Coverage: (http://www.childinfo.org/eddb/immuni/database.htm)</p>
Comments	The principle challenges are to improve the quality (accuracy, validity, completeness and timeliness) of the data. Also, interpretation of available data needs to be improved by adjusting for possible biases for the most accurate estimate of immunization coverage possible.



► Antenatal care coverage (%)

Rationale for use	Antenatal care coverage is an indicator of access and utilization of care during pregnancy.
Definition	Percentage of women who utilized antenatal care provided by skilled birth attendants for reasons related to pregnancy at least once during pregnancy as a percentage of live births in a given time period.
Associated terms	<p>Antenatal care includes recording medical history, assessment of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, first-line management and referral if necessary.</p> <p>Skilled birth attendant (see <i>Proportion of births attended by skilled health personnel</i>).</p> <p>Live birth (see <i>Probability of dying under age 5 years</i>).</p>
Data sources	<p>Household surveys: Birth history - detailed questions on the last child or all children a woman has given birth to during a given period preceding the survey (usually 3 to 5 years), and women are asked about the use of antenatal care. The number of births in the survey provides the denominator.</p> <p>Routine health service statistics: Number of women receiving antenatal care (numerator). Census projections or in some cases vital registration data are used to provide the denominator (numbers of live births). Problems can arise with both numerators and denominators (incorrect and biased or out-of-date data).</p>
Methods of estimation	Empirical data from household surveys are used. At global level, facility data are not used.
Disaggregation	By location (urban/rural, major regions/provinces) and socio-economic characteristics (e.g. women's education level, wealth quintile).
References	<p><i>Coverage of maternity care. A listing of available information</i>, Fourth edition. Geneva, World Health Organization, 1996.</p> <p>World Health Organization and United Nations Children's Fund. <i>Antenatal care in developing countries. Promises, achievements and missed opportunities</i>. Geneva, World Health Organization, 2003.</p> <p><i>The World Health Report 2005: Make every mother and child count</i>. Annex Table 8. Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/en/index.html)</p>
Database	Demographic and Health Surveys (DHS): (http://www.measuredhs.com)
Comments	A single antenatal visit is not really the best indicator of the quality of care. Additional indicators may include the number of visits (at least four per pregnancy are recommended) and the timing of the first visit.



► Births attended by skilled health personnel (%)

Health services coverage indicators

Rationale for use	All women should have access to skilled care during pregnancy and at delivery to ensure detection and management of complications. Moreover, because the indicator Maternal Mortality Ratio cannot be used for monitoring short-term trends, the proportion of births attended by skilled health personnel can serve as a proxy for monitoring progress.
Definition	Percentage of live births attended by skilled health personnel in a given period of time.
Associated terms	<p>A skilled birth attendant is an accredited health professional – such as a midwife, doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns. Traditional birth attendants, trained or not, are excluded from the category of skilled attendant at delivery. In developed countries and in many urban areas in developing countries, skilled care at delivery is usually provided in a health facility. However, birth can take place in a range of appropriate places, from home to tertiary referral centre, depending on availability and need, and WHO does not recommend any particular setting. Home delivery may be appropriate for a normal delivery, provided that the person attending the delivery is suitably trained and equipped and that referral to a higher level of care is an option.</p> <p>Live births (see <i>Probability of dying under age 5 years</i>).</p>
Data sources	<p>Household surveys: They constitute an important source of information on maternity care on ad hoc basis and, for many countries, they are the main source of information on skilled birth attendants. When using survey data, absolute numbers and confidence intervals should be reported to indicate the reliability of the data and facilitate interpretation of trends and differentials.</p> <p>Health services statistics: As the point of contact with women, this is the main and most obvious routine source of information for the numerator. Nevertheless, health service information used on its own constitutes a poor source of statistics on coverage of care as it is often incomplete because of inadequate reporting or exclusion of private sector information. Census projections or in some cases vital registration data are used to provide the denominator (numbers of live births).</p>
Methods of estimation	Empirical data from household surveys are used. At global level, facility data are not used.
Disaggregation	By place of delivery, type of skilled health personnel, location (urban/rural, major regions/provinces) and socio-economic characteristics (e.g. education level, wealth quintile)
References	<p><i>Reduction of Maternal Mortality. A Joint WHO/UNFPA/UNICEF/World Bank Statement.</i> Geneva, World Health Organization, 1999. (http://www.who.int/reproductive-health/mpr/attendants.html)</p> <p><i>Making pregnancy safer: the critical role of the skilled attendant. A joint statement by WHO, ICM and FIGO.</i> Geneva, World Health Organization, 2004.</p> <p><i>The World Health Report 2005, Make every mother and child count.</i> Annex Table 8. Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/en/index.html)</p>
Database	Under development.
Comments	While efforts are made to standardize definitions of skilled birth attendants, there is doubt about the comparability of some of the results across countries and within countries at different time periods.



► Contraceptive prevalence rate (%)

Rationale for use	The indicator is useful in tracking progress towards health, sex and poverty goals. It also serves as a proxy measure of access to reproductive health services that are essential for meeting many of the MDGs, especially the child and maternal mortality and HIV/AIDS goals.
Definition	Contraceptive prevalence rate is the percentage of women between 15-49 years who are practising, or whose sexual partners are practising, any form of contraception.
Associated terms	Contraceptive methods include condoms, female and male sterilization, injectable and oral hormones, intrauterine devices, diaphragms, spermicides and natural family planning, as well as lactational amenorrhoea (lack of menstruation during breastfeeding) where it is cited as a method.
Data sources	Household surveys, Demographic and Health Surveys (DHS), Multiple Indicators Cluster Surveys (MICS), contraceptive prevalence surveys. Estimates can also be made from service statistics using census projections as a denominator. Such estimates however are often expressed in terms of couple years of protection.
Methods of estimation	Empirical data only.
Disaggregation	By age (adolescence), marital status, method of contraception, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. education level, wealth quintile)
References	<p><i>Levels and Trends of Contraceptive Use.</i> Sales No. E.01.XIII.4. New York, United Nations, 2001.: (http://www.un.org/esa/population/unpop.htm)</p> <p><i>World Contraceptive Use 2001.</i> Wall Chart. Sales No. E.02.XIII.7. New York, United Nations, 2002. (http://www.un.org/esa/population/publications/contraceptive2001/contraception01.htm)</p> <p><i>The World Health Report 2005: Make every mother and child count.</i> Annex Table 8. Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/en/index.html)</p>
Database	Demographic and Health Survey (DHS): (http://www.measuredhs.com) UNICEF (statistics and MICS): (http://www.childinfo.org)
Comments	Statistics on contraception prevalence rates are based primarily on data reported by women, mainly because contraception is more easily measured in this way. In some countries the denominator is married women only, as (reported) sexual activity outside of marriage is considered rare.



► Children under five years of age using insecticide-treated nets (%)

Rationale for use	The use of Insecticide Treated Nets (ITN) by a population in malaria risk areas is one of the most effective malaria prevention measures. Malaria prevention programmes using ITN constitute one of the four interventions of the Roll Back Malaria Initiative. It is also listed as an MDG indicator.
Definition	Percentage of population under five years of age in malaria-risk areas reported as sleeping under ITN.
Associated terms	Malaria-risk areas include areas of endemic malaria (stable transmission allowing the development of some level of immunity) and epidemic malaria (seasonal and less predictable transmission impeding the development of effective immunity).
Data sources	Household surveys such as Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and malaria stand-alone surveys, that include questions on whether children under five years of age slept under an ITN the previous night.
Methods of estimation	Empirical data only.
Disaggregation	By age, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. education level, wealth quintile)
References	<p>WHO/Roll Back Malaria site. (http://www.rbm.who.int)</p> <p><i>The Africa Malaria Report 2003</i>. Geneva, New York, World Health Organization and United Nations Children Fund, 2004.</p> <p><i>World Malaria Report 2005</i>. Geneva, New York, World Health Organization and United Nations Children Fund, 2005. (http://rbm.who.int/wmr2005)</p>
Database	<i>State of the World's Children 2003</i> . New York, United Nations Children Fund, 2003: (http://www.childinfo.org/MICS2/MICSDaDataSet.htm)
Comments	The accuracy of reporting in household surveys may vary. Also, seasonal influences related to fluctuations in vector and parasite prevalence may affect level of coverage.



► Tuberculosis cases detected under DOTS (%)

Rationale for use	This indicator measures the National Tuberculosis Programme's (NTP) ability to diagnose and collect data on tuberculosis (TB) cases. It is also an MDG indicator.
Definition	Percentage of the total number of smear-positive TB cases estimated to occur countrywide in a given year that are diagnosed (correctly or incorrectly) and reported under DOTS to the national health authority.
Associated terms	Detection under DOTS implies that all components of the internationally recommended approach to TB control are in place where patients are detected – political commitment; uninterrupted drug supply; use of smear microscopy in diagnosing TB cases; standardized short-course treatment regimens; direct observation of treatment; monitoring of treatment outcomes for 100% of patients with TB.
Data sources	For the numerator, aggregated quarterly reports on TB case registration, which should be available at national TB programme or equivalent central office. For the denominator, WHO estimate based on a statistical model that takes into account all available data (which may differ from country to country) and includes case notifications and death records (from routine surveillance and vital registration) as well as measures of the prevalence of infection and disease (from population-based surveys). These estimates are reported every year by WHO in the annual report on global TB control.
Methods of estimation	To estimate the incidence of all TB cases, first a reference year for which a best estimate of incidence is available is selected. Then, the series of case notifications (all forms of TB) is used to determine how incidence changed before and after that reference year. The time series of estimated incidence rates is constructed from the notification series in two ways: if the rate of change of incidence is roughly constant through time, the exponential trends is fit to the notifications; if the rate of change varies, a three-year moving average of the notification rates is used. If the notifications for any country are considered to be an unreliable guide to trend (e.g. because reporting effort is known to have changed), the aggregated trend for all other countries with reliable data from the same epidemiological region is applied. The estimate of smear-positive TB is derived from the estimate of all TB cases considering the HIV prevalence in TB cases and assuming that smear-positive cases represent 45% of all HIV negative and 35% of HIV positive TB cases.
Disaggregation	None
References	Corbett EL et al. The growing burden of tuberculosis: global trends and interactions with the HIV epidemic. <i>Archives of Internal Medicine</i> , 2003, 163:1009–1021. Dye C et al. Global burden of tuberculosis: estimated incidence, prevalence and mortality by country. <i>Journal of the American Medical Association</i> , 1999, 282: 677–686. <i>Global Tuberculosis Control 2005. WHO Report</i> . Geneva. World Health Organization, 2005. (http://www.who.int/tb/wtbd2005/en)
Database	Global Tuberculosis Database: (http://www.who.int/GlobalAtlas/DataQuery/browse.asp?catID=011600000000&lev=3)
Comments	The case detection numerator may be affected by a number of factors: these are potential problems that are “indicated” by the analysis, rather than limitations of the indicator itself (e.g., under-reporting of cases to the NTP). Limitations of the indicator are that it can only be used at the national level and that it can only be used on an “annualized” basis. In addition, there are certain limitations inherent in the calculation of DOTS coverage and in WHO's estimate of incidence. The limitation of use only at the national level (countrywide analysis) is related to the accuracy and appropriateness of the denominator, WHO's estimated incidence for the country as a whole. There may be real differences in TB epidemiology in urban/rural areas and/or at sub-national levels, which means that the national estimate should not be used at sub-national levels.



► Tuberculosis cases successfully treated under DOTS (%)

Health services coverage indicators

Rationale for use	This indicator measures a programme's capacity to retain patients through a complete course of chemotherapy with a favourable clinical result. It is also an MDG indicator.
Definition	Percentage of a group of tuberculosis (TB) cases registered under DOTS in a specified period that successfully completed treatment, whether with bacteriologic evidence of success ("cured") or without ("treatment completed"). For new smear-positive cases, there is a target of 85% treatment success, based on the assumption of what can be reasonably achieved assuming the baseline proportion of unfavourable outcomes (death and failure and default) to be about 15%.
Associated terms	Treatment under DOTS means that all components of the internationally recommended approach to TB control are in place where patients are treated. (See <i>Tuberculosis cases detected under DOTS</i>)
Data sources	Numerator and denominator can be derived from aggregated quarterly reports on TB case treatment outcomes, which should be available at the National Tuberculosis Programme's (NTP) or equivalent central office. The country specific treatment outcomes are documented by WHO in the annual report on global TB control. At the end of the treatment course, one of six treatment outcomes is recorded in the TB register for each sputum smear-positive TB case: cured, treatment completed, died, failed, defaulted, or transferred out. The treatment outcomes should be available in the NTP office or equivalent in the country and is compiled by aggregation of the "quarterly reports on treatment outcomes". The quarterly reports are compiled from TB registers in basic management units and sent to the NTP office either directly or indirectly through the mid levels. Due to the applicability of this indicator to the lowest level, measurement has always been based on 100% of TB cases.
Methods of estimation	Empirical data only.
Disaggregation	In a national programme data should be disaggregated and analysed at the level of basic management unit (typically district health office).
References	Corbett EL et al. The growing burden of tuberculosis: global trends and interactions with the HIV epidemic. <i>Archives of Internal Medicine</i> , 2003, 163:1009– 1021. Dye C et al. Global burden of tuberculosis: estimated incidence, prevalence and mortality by country. <i>Journal of the American Medical Association</i> , 1999, 282: 677–686. <i>Global Tuberculosis Control 2005. WHO Report</i> . Geneva, World Health Organization, 2005. (http://www.who.int/tb/wtbd2005/en)
Database	Global Tuberculosis Database: (http://www.who.int/GlobalAtlas/DataQuery/browse.asp?catID=011600000000&lev=3)
Comments	This indicator relies on accuracy and effort in the determination of treatment outcomes at the facility level including the follow-up of transferred patients. At higher levels, this indicator is affected by completeness of reporting. For example, if reporting on cases registered is more complete than reporting (1 year later) on treatment outcomes, then the outcome of some cases in the denominator will be unaccounted for. For pulmonary smear-positive cases, the cure rate is more trustworthy—or more valuable—than the success rate because patients who completed treatment but who do not have bacteriological confirmation of cure could conceivably still have smear positive TB disease. The large majority of successfully treated cases should have bacteriological confirmation of cure. Another important limitation is that success (and other treatment outcomes monitored routinely in TB programmes) is an outcome of treatment regimens, not patient results. Although it might be useful to analyse a cohort of TB patients in terms of survival or TB-free status at a given point in time (e.g. 12 months, 24 months), the routine TB monitoring system was not designed to facilitate such an analysis.



► People with advanced HIV infection receiving antiretroviral (ARV) combination therapy (%)

Rationale for use	As the HIV epidemic matures, increasing numbers of people are reaching advanced stages of HIV infection. ARV combination therapy has been shown to reduce mortality among those infected and efforts are being made to make it more affordable even in less developed countries. This indicator assesses the progress in providing ARV combination therapy to everyone with advanced HIV infection.
Definition	Percentage of people with advanced HIV infection receiving ARV therapy according to nationally approved treatment protocol (or WHO/Joint UN Programme on HIV and AIDS standards) among the estimated number of people with advanced HIV infection.
Associated terms	None
Data sources	Health facility reports are used to obtain the number of people on ARV therapy i.e. drugs received during the last month. External validation of country reported figures is carried out with data from pharmaceutical industry (if available).
Methods of estimation	<p>The denominator of the coverage estimate is obtained from models that also generate the HIV prevalence, incidence and mortality estimates. The number of adults with advanced HIV infection who need to start treatment is estimated as the number of AIDS cases in the current year times two.</p> <p>The total number of adults needing ARV therapy is calculated by adding the number of adults that need to start ARV therapy to the number of adults who are being treated in the previous year and have survived into the current year.</p>
Disaggregation	By sex, age (children/adults), location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g. education level, wealth quintile)
References	<p><i>Monitoring the Declaration of Commitment on HIV/AIDS: guidelines on construction of core indicators.</i> Geneva, Joint United Nations Programme on HIV/AIDS, 2002. (http://www.unaids.org/en/in+focus/monitoringevaluation.asp)</p> <p><i>3 by 5 progress report.</i> Geneva, World Health Organization and Joint United Nations Programme on HIV/AIDS, 2004. (http://www.who.int/3by5/publications/en/progressreportfinal.pdf)</p>
Database	Under development
Comments	<p>The accuracy of the reported number of people on ARV therapy needs improvement as programme monitoring systems are still developing.</p> <p>Although this indicator allows trends to be monitored over time, it does not attempt to distinguish between the different types of therapy available nor does it measure the cost, quality or effectiveness of such treatment.</p> <p>Therapies for preventing the mother to child transmission of HIV and post exposure prophylaxis are not included in this indicator.</p>





Part 2

WORLD HEALTH INDICATORS

3. Behavioural and Environmental Risk Factors Indicators



Population with

- sustainable access to an improved water source (%)
- access to improved sanitation (%)

Rationale for use	Access to drinking water and improved sanitation is a fundamental need and a human right vital for the dignity and health of all people. The health and economic benefits of improved water supply to households and individuals (especially children) are well documented. Both indicators are used to monitor progress towards the MDGs.
Definition	<p>Access to improved water source is the percentage of population with access to an improved drinking water source in a given year.</p> <p>Access to improved sanitation is the percentage of population with access to improved sanitation in a given year.</p>
Associated terms	<p>Improved drinking water sources are defined in terms of the types of technology and levels of services that are more likely to provide safe water than unimproved technologies. Improved water sources include household connections, public standpipes, boreholes, protected dug wells, protected springs, and rainwater collections. Unimproved water sources are unprotected wells, unprotected springs, vendor-provided water, bottled water and tanker truck-provided water.</p> <p>Reasonable access is broadly defined as the availability of at least 20 liters per person per day from a source within one kilometer of the user's dwelling.</p> <p>Sustainable access has two components with respect to water: one stands for environmental sustainability, the other for functional sustainability. The former insists on environmental protection through limiting extraction of water to a capacity below what is actually available. The latter reflects programme sustainability in terms of supply and management.</p> <p>Improved sanitation facilities are defined in terms of the types of technology and levels of services that are more likely to be sanitary than unimproved technologies. Improved sanitation includes connection to a public sewers, connection to septic systems, pour-flush latrines, simple pit latrines and ventilated improved pit latrines. Not considered as improved sanitation are service or bucket latrines (where excreta is manually removed), public latrines and open latrines.</p>
Data sources	Household surveys and assessment questionnaires to complement survey data or to provide estimates where survey data are not available. The latter also captures information related to usage and breakdown of self-built water facilities of which service providers may be unaware.
Methods of estimation	'Estimates are generated through analysis of survey data and linear regression of data points. Coverage estimates are updated every two years.'
Disaggregation	By location (urban/rural).
References	<p><i>Global Water Supply and Sanitation Assessment 2000 Report</i>. Geneva, New York. World Health Organization and United Nations Children's Fund, 2004. (http://www.who.int/water_sanitation_health/Globassessment)</p> <p><i>Meeting the Millennium Development Goals Drinking water and sanitation target</i>. (http://www.wssinfo.org)</p>
Database	WHO/UNICEF Joint Monitoring Programme web site: (http://www.wssinfo.org)
Comments	Information is missing from many developed countries. More needs to be done to address the issues of sustainability and safety in drinking water provision.



► Population using solid fuels (%)

Rationale for use	The use of solid fuels in households is associated with increased child mortality, mainly from respiratory diseases, and is an indicator of socio-economic status. It is also an MDG indicator.
Definition	Percentage of population using solid fuels as the main cooking fuel.
Associated terms	Solid fuels include coal, charcoal, wood, crops or other agricultural waste, dung, shrubs, grass, straw etc.
Data sources	Household surveys and national census. National energy statistics on the proportion of population using solid fuels are based either on data from surveys or censuses, or on statistical models where no survey or census data are available.
Methods of estimation	The data from surveys and censuses are used as reported in the surveys and censuses. A regression model based on gross national income, per capita petroleum consumption and rural population is being used. All countries with a GNP per capita above US\$ 5,000 are assumed to have made a complete transition to cooking with non-solid fuels.
Disaggregation	By location (urban/rural, major regions/provinces) and socio-economic characteristics (e.g. education level, wealth quintile)
References	Smith KR, et al. Indoor air pollution from household use of solid fuels. In: Ezzati M et al., eds. Comparative quantification of health risks: global and regional burden of disease attributable to selected major risk factors. Geneva, World Health Organization, 2004.
Database	Databases related to indoor air pollution: (http://www.who.int/inhalair/health_impact/databases/en)
Comments	Data from surveys or censuses are now available for 94 countries but are modelled for the remaining developing countries.



► Prevalence of current tobacco use in adolescents (13-15 years of age) by males and females

Behavioural Risk Factor indicator

Rationale for use	'Early onset of tobacco use is an important risk factor for chronic diseases associated with tobacco later in life. Tobacco is an addictive substance and smoking often starts in adolescence, before the development of risk perception. By the time the risk to health is recognized, the addicted individuals find it difficult to stop tobacco use.'
Definition	Prevalence of tobacco use (including smoking, oral tobacco and snuff) on more than one occasion in the 30 days preceding the survey, among adolescents aged 13-15 years.
Associated terms	None.
Data sources	Global Youth Tobacco Survey (GYTS) and Global School Health Survey (GSHS). GYTS started in 1998 and is ongoing. Few countries have repeated surveys. This is a school based self-administered questionnaire.
Methods of estimation	Adjustments and standardizations are made as necessary.
Disaggregation	By sex.
References	GYTS: (http://www.who.int/tobacco/surveillance/gyts/en) GSHS: (http://www.who.int/school_youth_health/assessment/gshs/en)
Database	WHO Global InfoBase: (http://www.who.int/ncd_surveillance/infobase/web/InfoBaseOnline/en/index.asp)
Comments	Some of the surveys were conducted in small sub-national populations and therefore may not accurately reflect the national picture.



► Per capita alcohol consumption among adults aged 15 years and older

Rationale for use	Over-consumption of alcohol is related to many diseases and health conditions, including chronic diseases such as alcohol dependence and liver cirrhosis, and acute health problems such as injuries. Estimation of per capita consumption of alcohol across the entire population aged 15 years or older can provide policy makers with some sense of the magnitude and trends likely to be found in alcohol-related problems.
Definition	Liters of pure alcohol per capita, computed as the sum of alcohol production and imports, less alcohol exports, divided by the adult population (aged 15 years or older).
Associated terms	None
Data sources	Food and Agriculture Organization's Statistical Database (FAOSTAT), World Drink Trends, regularly published by Produktschap voor Gedistilleerde Dranken (Netherlands) Direct government data.
Methods of estimation	Estimated amount of pure ethanol in litres of total alcohol, and separately, beer, wine and spirits consumed per adult (15 years and older) in the country during a calendar year, is calculated from official statistics on production, sales, import and export, taking into account stocks whenever possible. Conversion factors are used to estimate the amount of pure alcohol in various alcoholic beverages. In beer (barley) the factor represents 5% of alcohol, in wine it is 12% and in spirits 40%. Other conversion factors are used for some types of beer and other beverages.
Disaggregation	None.
References	<i>Global Status Report on Alcohol.</i> Geneva, World Health Organization, 2004.
Database	Global Alcohol Database: (http://www.who.int/alcohol)
Comments	It is important to note that these figures comprise, in most cases, the recorded alcohol consumption only and have some inherent problems. Factors that influence the accuracy of per capita data are: informal production, tourist and overseas consumption, stockpiling, waste and spillage, smuggling, duty-free sales, variation in beverage strength and the quality of the data on which it is based. In some countries there exists a significant unrecorded alcohol consumption that needs be taken into account for a comprehensive picture of total alcohol consumption. Several African countries (Uganda, Nigeria, Swaziland and Burundi) appear in the list in the top 30 positions of adult per capita consumption. This is because the calculations were based on FAO data which include fermented beverages and estimates of beer produced locally from sorghum, millet and other agricultural products.



► Condom use at higher risk sex among young people aged 15-24 years (%)

Behavioural Risk Factor indicator	
Rationale for use	Consistent correct use of condoms within non-regular sexual partnerships substantially reduces the risk of sexual HIV transmission. This is especially important for young people who often experience the highest rates of HIV infection. Condom use is one measure of protection against sexual transmission of HIV; others include delaying age at first sex, reducing the number of non-regular sexual partners, being faithful to one uninfected partner, avoidance of concurrent sexual partnerships and high-risk sexual practices such as unprotected anal sex.
Definition	Percentage of young people aged 15–24 years reporting the use of a condom during the last sexual intercourse with a non-regular partner among those who had sex with a non-regular partner in the last 12 months.
Associated terms	A non-regular sexual partner is a non-marital and non-cohabiting partner.
Data sources	Household surveys such as Demographic and Health Surveys (DHS), Multiple Indicators Cluster Survey (MICS), 'Behavioural Surveillance Surveys (BSS).
Methods of estimation	Empirical data only. Survey respondents aged 15–24 years are asked whether they have commenced sexual activity. Those who report sexual activity and have had sexual intercourse with a non-regular partner in the last 12 months, are further asked about the number of non-regular partners and whether they used condom protection the last time they had sex with a non-regular partner.
Disaggregation	By sex, location (urban/rural, major regions/provinces), and socio-economic characteristics (education level).
References	<p><i>Monitoring the Declaration of Commitment on HIV/AIDS – Guidelines on Construction of Core Indicators</i> (http://www.unaids.org/en/in+focus/monitoringevaluation.asp)</p> <p><i>UNAIDS National AIDS Programmes: A Guide to Monitoring and Evaluation</i>. Geneva, Joint United Nations Programme on HIV/AIDS 2000 (http://www.cpc.unc.edu/measure/guide/guide.html)</p>
Database	Measure Demographic and Health Surveys (DHS): HIV/AIDS database: (http://www.measuredhs.com/hivdata)
Comments	Data quality is affected by self-reporting biases. There is often substantial reluctance to report non-regular sexual activity, especially among young women. Furthermore, if condoms are promoted in AIDS campaigns, there may be a strong desirability bias: respondents say they used condoms, even if they have not.



Part 2

WORLD HEALTH INDICATORS

4. Health Systems Indicators



- Number of physicians per 10 000 population
- Number of nurses and midwives per 10 000 population
- Total number of health workers per 10 000 population
- Nurses and midwives to physicians ratio

Health System Indicators

Rationale for use	The availability and composition of human resources for health is an important indicator of the strength of the health system, even though there is no consensus about the optimal level of health workers for a population and the higher levels of density are not necessarily better. The nurse-physician ratio is an indicator of the health worker skills mix.
Definition	<p>Physicians' density is the number of physicians per 10000 population.</p> <p>Nurse density is the number of nurses per 10 000 population.</p> <p>Total number of health workers per 10000 population is the total number of physicians, nurses and midwives</p> <p>Nurse-physician ratio is the ratio of the number of nurses to physicians.</p>
Associated terms	<p>Physicians, nurses and midwives are defined on the basis of education, regulation, activities and task-based criteria (combined WHO and ILO classification system). This does not include auxiliary nurses. In some countries, statistics on midwives are included in the reported numbers, in others they are not.</p> <p>The 2004 Joint Learning Initiative report on human resources for health used three categories to identify low, medium and high density of health workers: less than 25, 25-50 and 50 or more health workers respectively per 10000 population.</p>
Data sources	<p>Country reports forwarded to WHO regional offices or headquarters, based on administrative records such as databases of registered physicians/nurses in the country. In some countries data are obtained from the census, labour force or other surveys that include questions about occupations of the household members. Data on physicians and nurse constitute generally the best information available on human resources for health.</p> <p>In the WHO Region of the Americas, the indicator "Number of nurses and midwives per 10000" refers to nurses and nurses-midwives per 10000. It does not include midwives.</p>
Methods of estimation	No methods of estimation have been developed.
Disaggregation	By sex, age, and location (urban/rural) in some countries.
References	<p><i>WHO progress towards health for all. Statistics of Member States.</i> Geneva, World Health Organization, 1994.</p> <p><i>International standard classification of occupations.</i> ISCO-88. Geneva, International Labour Office, 1990.</p>
Database	<p>Human Resources for Health Information: (http://www.globalatlas.who.int/GlobalAtlas/DataQuery/browse.asp?catID=180000000000&lev=2) (http://www.wpro.who.int/chips/default.asp)</p> <p>Regional Core Health Data Initiative: (http://www.paho.org/English/SHA/coredata/tabulator/newTabulator.htm)</p> <p>European Health for all database (HFA-DB): (http://www.data.euro.who.int/hfadb)</p>
Comments	<p>The accuracy and completeness of data on human resources for health in countries can be a problem because databases are not updated frequently, private sector data is often not included and definitions of workers vary.</p> <p>Many low-income countries have trained cadres of health workers that have received extensive clinical training and perform many clinical functions of doctors. These are "assistant medical officers", clinical officers, etc. and they are not included in the database. Another challenge is the definition of "nurses" and "midwife".</p>



► Number of hospital beds per 10 000 population

Health System Indicators	
Rationale for use	Service delivery is an important component of health systems. To capture availability, access and distribution of health services delivery, a range of indicators or a composite indicator are needed. Currently, there is no such data for the majority of countries. "In-patient beds" density is one of the few available indicators that relate to "level of health service delivery".
Definition	Number of in-patient beds per 10000 population.
Associated terms	Hospital beds include in-patient and maternity beds. Maternity beds are included while cots and delivery beds are excluded.
Data sources	Administrative records, based on reported data by in-patient facilities; censuses of health facilities.
Methods of estimation	Empirical data only with possible adjustment for underreporting (e.g. missing private facilities).
Disaggregation	By location (urban/rural) although the availability of data is limited in many instances.
References	<i>Health situation in the Americas. Basic Indicators.</i> Washington, World Health Organization. Pan American Health Organization, 2004. <i>South-East Asia Region. Basic Indicators 2004.</i> New Delhi, World Health Organization, 2004.
Database	Human Resources for Health Information: (http://www.globalatlas.who.int/GlobalAtlas/DataQuery/browse.asp?catID=180000000000&lev=2) (http://www.wpro.who.int/chips/default.asp) Regional Core Health Data Initiative: (http://www.paho.org/English/SHA/coredata/tabulator/newTabulator.htm) European Health for all database (HFA-DB): (http://www.data.euro.who.int/hfadb)
Comments	There is a need for further work to better capture the level and distribution of health services in a country. This would be the first step towards assessing inequity in access to health services.



- Total expenditure on health as percentage of GDP
- General government expenditure on health as percentage of total general government expenditure
- Per capita total expenditure on health at international dollar rate

Health System Indicators

Rationale for use	Health financing is a critical component of health systems. There is a wide range of indicators that need to be monitored. The selected indicators summarize national expenditure on health.
Definition	Total health expenditure as percentage of Gross Domestic Product (GDP) Percentage of total general government expenditure that is spent on health.
Associated terms	<p>Total health expenditure is the sum of general government expenditure on health and private expenditure on health in a given year (in international dollars).</p> <p>GDP is the value of goods and services provided in a country by residents and non-residents without regard to their allocation among domestic and foreign claims. This corresponds to the total sum of expenditure (consumption and investment) of the private and government agents of the economy during the reference year.</p> <p>General government expenditure includes consolidated direct outlays and indirect outlays, including capital of all levels of government. Social security institutions, autonomous bodies, and other extra-budgetary funds.</p> <p>International dollars are derived by dividing local currency units by an estimate of their Purchasing Power Parity (PPP) compared to US dollar, i.e. a measure that minimizes the consequences of differences in price levels existing between countries.</p>
Data sources	<p>Health expenditure data are based on National Health Accounts (NHA), which synthesize financing and spending flows recorded in the operation of a health system. However, only a limited number of countries produce full NHA.</p> <p>Other national sources include public expenditure reports, statistical yearbooks and other periodicals, budgetary documents, national account reports, statistical data on official web sites, nongovernmental organization reports, academic studies and reports and data provided by government ministries and offices.</p> <p>The United Nations National Account Statistics are the main source for GDP for most countries.</p> <p>General government expenditure obtained from national accounts of Organization for Economic Cooperation and Development (OECD) countries and International Monetary Fund (IMF) government finance statistics.</p>
Methods of estimation	Estimates for total health expenditure per capita are based on NHA or multiple other sources provided to WHO and partners by the countries or publicly available sources. Ratios are represented in per capita terms by dividing the expenditure figures by population figures. These per capita figures are expressed first in US dollars at an average exchange rate which is the observed annual average number of units at which a currency is traded in the banking system. It is then also presented in international dollar estimates which, as noted above, minimizes the impact of price differentials between countries.
Disaggregation	None.
References	<i>The World Health Report 2005: make every mother and child count.</i> Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/annex/annexe5_en.pdf)
Database	<i>The World Health Report 2005: make every mother and child count.</i> Geneva, World Health Organization, 2005. (http://www.who.int/whr/2005/annex/annexe5_en.pdf)
Comments	The lack of availability and the lack of standardization of NHA limit estimation and comparison.



► Coverage of vital registration of deaths

Rationale for use	Health information is an essential component of health systems. The registration of births and deaths with causes of death, called "vital registration system", is an important component of a country health information system.
Definition	Percentage of estimated total deaths that are 'counted' through vital registration system.
Associated terms	None.
Data sources	Country reports of coverage and WHO assessment of coverage.
Methods of estimation	Expected numbers of deaths by age and sex are estimated from current life tables, based on multiple sources. Reported numbers are compared with expected numbers by age and sex to obtain an estimate of coverage of the vital registration system.
Disaggregation	None.
References	Mathers et al. Counting the dead and what they died from: an assessment of the global status of cause of death data. <i>WHO Bulletin</i> 83, 2005, 171-177.
Database	WHO mortality database website: (http://www3.who.int/whosis/menu.cfm?path=whosis,search,mort&language=english)
Comments	Though sample registration systems only partially cover deaths in a country, they can be an important intermediate solution to obtain mortality and causes of death information about the country.

